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ABSTRACT

This thesis describes and discusses briefing as an efficient method for communicating reports to project management. Briefing is an oral form of communicating specific objectives, tasks, or information with accuracy, brevity, and clarity. In a small case study of Air Force briefing use, the types of briefings were divided according to the direction of flow within the hierarchy--i.e., vertical, horizontal, or radial--and applied to a communication model. Aspects of briefing discussed include the briefer, the project manager, the channel, and the message. Discussion was oriented on how the briefer could organize and plan his briefing accurately. The study concludes that briefing can provide project management with a form of receiving reports that will help maintain a project on schedule and minimize problems. (Author/MLF)

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BRIEFING AS A METHOD FOR COMMUNICATING REPORTS TO PROJECT MANAGEMENT

A Thesis

Presented in Partial Fulfillment of the Requirements
for the Degree Master of Arts

by

Jeffrey Booth Gore, B.S. Ed.

The Ohio State University
May 1969

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CHAPTER I

INTRODUCTION, PURPOSE, AND DEFINITIONS

Introduction and Purpose

Today many specialists strive for the improvement of their culture and society through research and development. Each year billions of dollars from public and private funds support research and development efforts in many disciplines to find solutions to existing problems.

Within the last decade, research and development activities in education have increased due to the legislation of the Cooperative Research Program of 1956, Defense Education Act of 1958, The Vocational Act of 1964, and the Elementary and Secondary Act of 1965. Each legislative act contains provisions and support for the funding of projects that can identify and efficiently solve educational problems.

One such problem that still exists in education is the efficient management of funded research and development projects. Recognizing the need for better project management, Dr. Desmond Cook of the Ohio State University in 1967 undertook a project for the U.S. Office of Education that would train research and administrative leaders in the general concepts of project management and in selected management information systems.

Dr. Cook received 351 inquiries about the institutes for project management he would hold in 1968-69. Requests for information came not only from the United States but also Canada, India, and Sweden, thus indicating that the problem of project management is an international one. Those finally selected to attend the institutes received in-depth training on how to become better project directors or managers.

As better project managers they could more efficiently plan, organize, direct, and control personnel and materials in order to reach the final goal of project completion of predetermined objectives. Utilizing these four functions, they would be involved in the management process.

For a project to run efficiently, it is necessary that effective communication techniques of reporting between the different levels of project management be available. Unfortunately, time did not allow for communication techniques to be adequately discussed during the five-day institutes. However one lecture did deal with written reports in project management. One technique that Dr. Cook and the writer considered to be an effective and efficient method of reporting orally to project management was that of briefing. Although used extensively by the military and some large corporations, the briefing can be applied to educational projects as well. Therefore the writer decided to study the briefing as a method of communicating reports to project management.

Assumptions

It was assumed by the writer that 1) briefing is an efficient method of reporting information to project management, 2) briefing techniques as used by the military and industry can be applied to educational project management, and 3) briefing is an application of a process of communication.

Organization of the Study

The first two chapters of this study orient the reader. The first chapter familiarizes the reader with terms used throughout the thesis such as project management, project manager, communication, reporting techniques, and briefing. The chapter also deals specifically with the many types of briefings that exist in an organization such as the Air Force.

Chapter Two discusses how the briefing is an application to a model showing the process of communication. David Berlo's S-M-C-R Model is selected as being the most applicable to briefing situations. It is used as the foundation for the remaining three chapters.

Chapter Three analyzes the briefer and the environment in which he may give his briefing. Analysis of audience and speech-making techniques are discussed.

Chapter Four analyzes the project manager as the receiver of the briefing. First the responsibilities of the project manager are discussed. Then his listening ability and how the speaker, environment, and himself can affect his information input are considered.

Chapter Five deals with the channel. Primarily the visual channel is discussed since the auditory channel is discussed within chapters three and four. Advantages and disadvantages of audiovisual equipment and software used with the equipment are discussed.

Definition of Terms

Before analyzing the briefing as an effective reporting technique for the communication of information to project management, it is necessary to define and interrelate five terms often referred to in this study. These are project management, project manager, communication, report, and briefing.

Project Management

Project management is the efficient planning, organizing, directing, and controlling of personnel and materials in order to reach the final goal of project completion of predetermined objectives.

Planning is the development of a plan with the inclusion of work schedules and budgets for accomplishment of predetermined primary and secondary objectives. Linked to the plan is an information base utilized for the purpose of problem identification. Tasks involved in the planning phase include project identification, work flow, estimation of scheduled times, allocation of resources, and determination of costs or budget.[1]

Once objectives and resources are determined, specific work or tasks are assigned and dependencies between tasks and performance standards are established. Next follows the scheduling of the plan with calendar dates and time estimates for the start and completion of each work task.

To activate the plan and keep it flowing smoothly, it is necessary to direct and motivate personnel. In this, the directing stage, communication plays an important role at all levels of management from the project leader to the staff directed by the line supervisors. Each must understand project goals, alternative actions, and direction of tasks. Involvement of all the personnel in the planning and organizing functions will lead to rewards in terms of "increased morale and better production."[2]

As the project proceeds, management must be regularly informed of work progress and any deviations from the schedule. Such deviations must be immediately brought to the attention of the project manager in a report form so that "problems can be identified, alternative solutions made, and decisions implemented by recycling the project as needed."[3] Commonly this is referred to as the control phase of the management process. It is important that communication is effective at this point because time and cost would not permit too many mistakes.

The Project Manager

The central figure in projects within government, business, military, and educational organizations is referred to as the director, chairman, principal investigator, or coordinator. Since their fundamental roles are to plan, organize, direct, and control the project from its beginning through to its successful completion, it would be more suitable to refer to him as a project manager.

The project manager may direct several people in a simple organizational structure. However more projects are becoming increasingly complex due to the many areas or specialists that may be directed. As more personnel become involved in the project, more levels of management develop.

Complex projects, according to Booz, Allen, and Hamilton Management Consultants, may have several types of project managers. In ascending levels within the hierarchical structure of the organization, these are 1) the project expediter, 2) the project coordinator, 3) the project manager, and 4) the project general manager.

First, the project expediter, similar to a military staff sergeant or an industrial foreman, keeps people working on schedule. Although he has little power of direction, he is considered the center of communication between the staff and management. He can translate and interpret scientific information or jargon into a more suitable terminology, that is, into business terms.

A level above the project expediter is the project coordinator whose job is to achieve unity of control by making decisions dealing with procedures and personal interaction. Although he has independent authority to act, he does not direct the work of others.

Having more authority, the project manager performs all the management functions from planning to controlling. However, he only directs the administrative heads of other departments. In fact, his primary function is achieving unity of direction. Activities he performs are determination of the budget, issuance of instructions to the employees, and the assignment of work loads.

At the top level of the management hierarchy is the project general manager whose chief function is to achieve unity of command by directing the complete project. He receives employees' reports sent through the organizational structure. He also has responsibility to and authority over the profits made.[4] In Figure 1.1 the writer illustrates the various levels of project management and the tasks performed at each level. The arrow pointing downward represents the orders, command or direction as a result of the information being fed to the managers from within the organization which is represented by the arrow pointing upward. The horizontal arrow represents decisions made within a given level, such as, the correction of employee grievances.

Cook summarizing definitions by Baumgartner, Cleland, and Gaddis states that the principal role of the project manager is to "produce a product within time, cost and performance parameters with that team operating within some lines of organizational responsibilities and authorities."[5]

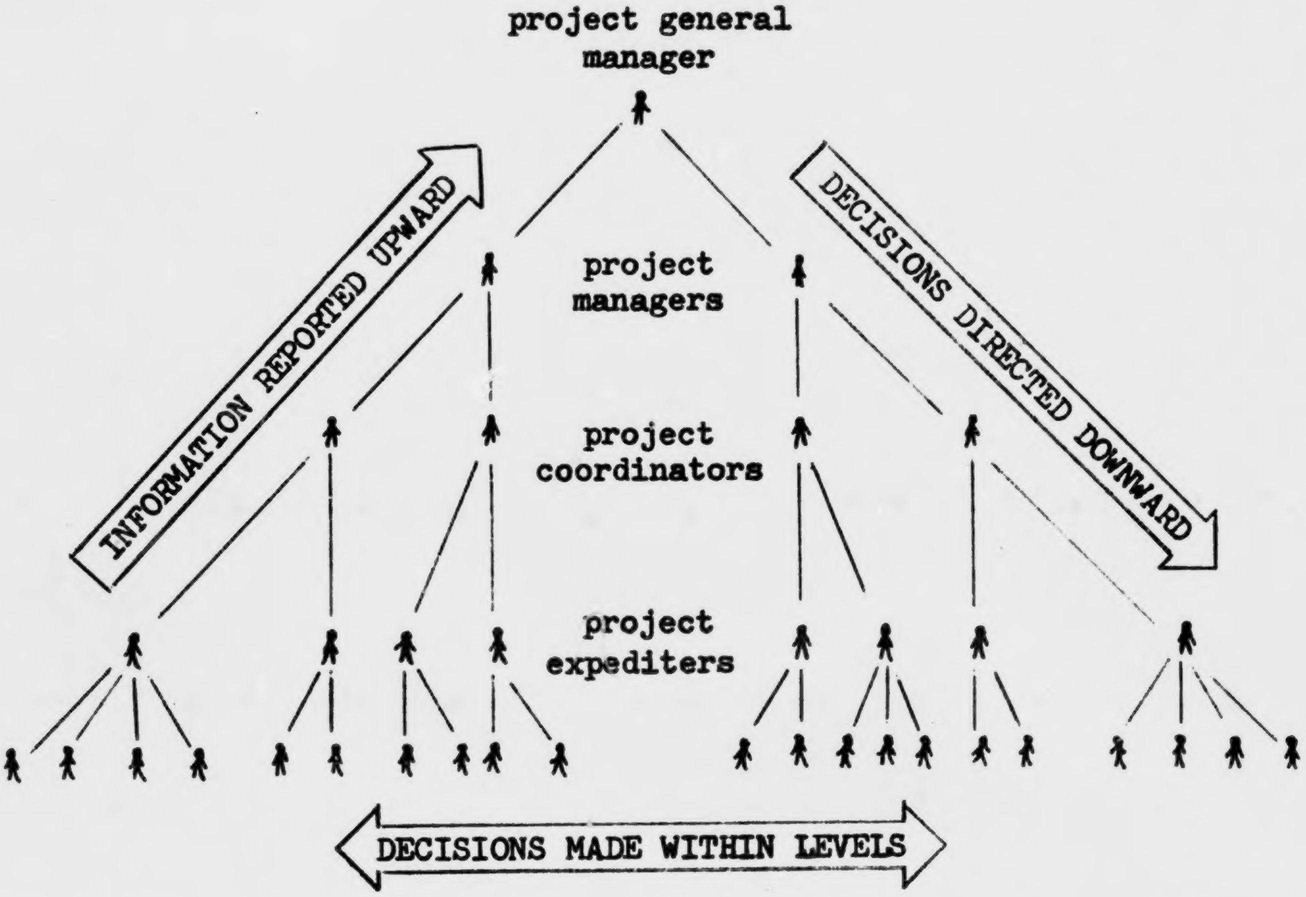
project general manager
INFORMATION REPORTED UPWARD
DECISIONS DIRECTED DOWNWARD
project managers
project coordinators
project expediters
DECISIONS MADE WITHIN LEVELS

Fig. 1.1 -- The management hierarchy

Key words applicable to this study in Cook's definition are "integrating persons into a team." Dissecting this phrase we can see the importance of each word. Integrating means "to form into a whole."[6] Professional persons would be synonymous with engineers, doctors, lawyers, educators, etc. A "team" could be defined as "a number of persons associated together" with a specific goal in mind.[7] Therefore one of the project manager's primary roles is to coordinate specialists as a whole to achieve a specific goal. The coordinating of specialists, each having a different professional jargon, can be a difficult matter for the project manager.

A hypothetical case may better show the interrelationships between the different levels of management. For example, if a large metropolitan school system had been federally funded to create a new curriculum by improving instructional techniques, it would involve several areas such as 1) in-service training of teachers in the field, 2) purchase and implementation of instructional media, and 3) school construction to accomodate new courses that would be added to the curriculum, for example a new astronomy course might require the construction of a small planetarium.

As shown by the simple organizational diagram in Figure 1.2 the project general manager, who may be the director of the curriculum, would be in charge of the project managers directing the phases of school construction, instructional media, and in-service training. Each of these in turn would be divided into smaller sub-units. For example, the manager of instructional media would direct coordinators in instructional radio and television, film and audiovisual services, and library services. Likewise film and A-V services could be subdivided into production and purchasing, research, dissemination, etc.

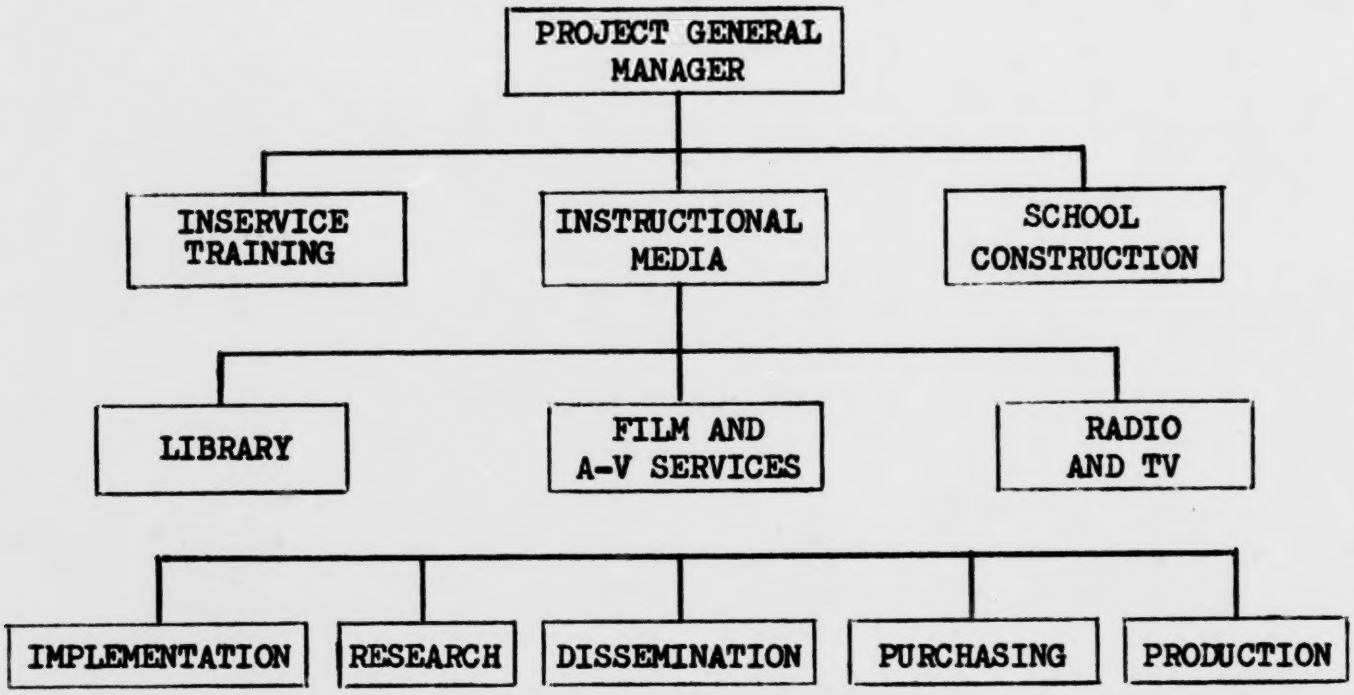
PROJECT GENERAL MANAGER
INSERVICE TRAINING
INSTRUCTIONAL MEDIA
SCHOOL CONSTRUCTION
LIBRARY
FILM AND A-V SERVICES
RADIO AND TV
IMPLEMENTATION
RESEARCH
DISSEMINATION
PURCHASING
PRODUCTION

Fig. 1.2 -- An organizational diagram of a hypothetical curriculum improvement project.

Controlling, coordinating, and directing of the curriculum improvement project would require communication techniques among and between the different levels of management.

Before presenting the various techniques of communication within project management, the writer will define the word communication.

Communication

Many authors have defined communication by relating it to their area of interest. Analysis of several of these definitions of communication brings out commonalities as do many definitions of the words "science," "animal," and "life." Each word may be defined differently and still share common characteristics, yet each possesses particular characteristics that give it a separate identity.

The writer has examined the following key definitions of communication.

Communication is --

(1) the exchanging of ideas and, since man is emotional as well as rational, the evidence of feelings. (8)--Aurner

(2) a process, a complex of events operating in several dimensions of space and time, and always involving the attitudes, the knowledge, the communication skills of more than one person and the social and cultural context in which he is located. (9)--J. Ball

(3) the sharing of ideas and feelings in a mood of mutuality. (10)--Edgar Dale

(4) a process of sharing experience till it becomes a common possession. (11)--John Dewey

(5) a means of establishing a commonness with another person or group by sharing facts, ideas, and viewpoints. (12)--G. McCloskey

Each definition imparts a two-way process such as an interchange, sharing, or exchanging that delivers content in the form of facts, information, skills, or ideas through a mode such as a language--written or spoken symbols. Condensing this, the writer arrived at the following definition of communication: "Communication is a process whereby content is shared through a certain mode." Communication as a process and how it can be effective will be considered in Chapter Two.

Communication within management.-- According to Russell Elliott, today's industrial and business management must be concerned with promotion of better communication for four reasons. These are "1) remoteness of employer and employee relations, 2) decentralization of production facilities, 3) increasing specialization and departmentalization of supervision, and 4) poor employee understanding of company operation." Although this concern for better communication is evident, Russell Elliott states that "verbal communication . . . is lacking as a present-day concern of management."[12]

Booz, Allen, and Hamilton Management Consultants refer to a study indicating the amount of time spent communicating by a project manager in scientific manufacturing. The firms studied and the number of people measured were not reported.[13]

1) Of the time spent at the job as project manager
    a) 21% was alone
    b) 41% of the time was with one other person
    c) 11% was with two other people
    d) 8% was with three to ten persons
    e) 19% was with more than ten persons

2) While with other people
    a) 99% of the time was spent communicating
    b) 1% was spent contemplating

3) When communicating, the technique used was
    a) Sending
        1) 2% written
        2) 19% telephone
        3) 35% 1-2 persons orally
        4) 44% 2 or more persons orally
    b) Receiving
        1) 5% telephone
        2) 22% 1-2 persons orally
        3) 33% written
        4) 40% 2 or more persons orally

4) The amount of time spent with the levels of persons contacted were
    a) 32% with a middle manager
    b) 23% with employees
    c) 21% alone (See item #1)
    d) 20% with supervisors
    e) 2% with department manager
    f) 1% with vendors
    g) 1% with general manager

5) The amount of time performing each function was
    a) 70% controlling
    b) 25% planning
    c) 3% no classification
    d) 1% contemplating
    e) 1% directing
    f) 1% organizing

These percentages disclose that the project manager does spend most of his time communicating orally to one or more persons subordinate to his position. Planning and controlling, two important functions of project management, occupy most of his time. The control phase especially should provide management with timely, relevant, and valid reports so that problems can be identified, corrective solutions considered and decisions made to recycle the project.

One way of providing management with information that is timely, relevant, and valid is through the use of accurate, clear, and concise reports that reflect current project status, and highlights present and potential problems.

Report

A report is a method of providing continuous accurate and rapid detailed and/or summary information to appropriate management levels. They may be written or oral.

Drucker, author of The Effective Executive, states the following:

> "As soon as you move one step up from the bottom your effectiveness depends upon your ability to reach others through the written and spoken word . . . and the further away your job is from manual work, the larger the organization of which you are an employee, the more important it will be that you know how to convey your thoughts in writing and speaking." (14)

Many persons within business, industry, military, and the government must prepare written and oral reports in order that accurate decisions may be made. Unfortunately "a report is no stronger than its source of information."[15]

A report's comprehensibility as it passes through the hierarchal management of an organization can be compared to a person's changing view when in an airplane taking off from an airport. As the plane rises in altitude, objects become smaller -- trees become forests, rivers become networks, houses become cities -- yet our vision becomes greater in scope. Similarly, as reports rise through the levels of management, they must give a complete picture of what is occuring below, yet with reduced detail.

Reports take on a different meaning at each level. For example, in industry at the lower operating level of the hierarchy, the report is valued for its technical content, but as it approaches higher levels of management, it is valued more for financial and management information.[16]

Besides content, J. Barron Wiley lists other factors to be considered before reporting to management:

1. Executives usually have the ability to grasp information quickly and accurately.

2. Pressure from other work makes management intolerant of delay or unnecessary detail.

3. Generally management disapproves of expensive presentations.

4. Management wants all the relevant facts summarized and stated, but the decisions are to be theirs.

5. Since decisions should be based on provable facts, supporting detail should be available in the event that proof should be called for during a presentation.[17]

Since an educational project manager or director may also be a teacher, professor, researcher, or administrator, he may during the course of one working day come in contact with several types of reports.

Paul Douglass, author of Communication Through Reports, describes the following 15 types of reports which he classified into six categories:

1. Oral reports include
    - a. Telephone conversations
    - b. Conferences: panel, symposium, forum, debate, meeting
    - c. Briefings: (Will be defined later)
    - d. Public speech

2. Informal reports include
    - a. The letter: the oldest, most direct, and most personal of all forms of written communication. (Douglass, P. 232)
    - b. The memorandum: a concise, informal, typewritten discussion of a single subject directed to a specific individual or group. (Douglass, P. 256)

   c. Information reports: communicate facts of immediate importance to the reader. (Douglass, P. 264)

3. Technical reports include
   a. Technical memorandum: similar to the memorandum but imparts technical information.
   b. Research report: a written structured description of an inquiry pertinent to the organization.
   c. Long-form reports: a formal written document with the recorded steps in order of a particular investigation. (Douglass, P. 287)
   d. The scientific paper: reports the result of research for the information, study, and criticism of professional colleagues. (Douglass, P. 297)

4. Organization reports include
   a. Staff study: a brief, one page form that summarizes a specific answer to a specific problem and records the opinions of all responsible persons concerning the proposed solution. (Douglass, P. 305)
   b. Public information: a report operation to reach people through the mass media. (Douglass, P. 309)
   c. Legislative language: government forms, reprints of laws, bureau decisions, and orders for reference to employee concerns. (Douglass, P. 333)
   d. Organizational writing: "Think operation" reports that help management make decisions and weigh alternatives. It may be in the form of a pro-and-con memorandum, position brief, case brief, or problem paper. (Douglass, P. 348)

5. Executive reports include accurate, brief, current, comparative, and analytical information needed to plan and control activities of the organization. (Douglass, P. 367)

6. Personal reports include
   a. Periodic reports: a standard performance report issued at regular, stated, recurring times. (Douglass, P. 204)
   b. Progress reports: a report showing the measured degree of forward movement toward a stated objective; sometimes identical with a periodic report. (Douglass, P. 204)

c. Special reports: a report which identifies and discusses some unusual problem that needs attention; in the broad sense, all research reports. (Douglass, P. 204)
d. Advisory reports: any routine report plus an analysis which provided the basis for special attention and action. (Douglass, P. 204) (18)

As shown, Douglass stresses written reports more than oral reports. However, several reports listed could be given orally to management. For example, project management is concerned primarily with reports that show project status, problem areas, and alternatives to correct the problems. Such information would be presented in what Douglass categorizes as organization reports, executive reports, and personal reports.

Project management requires a reporting technique that presents all the necessary information in an accurate, brief, and clear manner so that problems and deviations within the project may be corrected before more problems are created.

Although written reports may be used, time is needed to read them and they can easily become misplaced or buried in a pile of insignificant reports.

Some businessmen suggest that oral reports have an advantage over written reports. One is Lee L. Davenport, President of the General Telephone and Electronics Laboratories, Inc. He relates through past experience that "face-to-face communication is best" because it permits managers to review matters with subordinates and to inform others of facts, ideas, and impressions. He argues that oral reporting is superior to written reporting when reaching management because written reports are "inflexible and formalized."[19]

Frederick J. MacDougall, Assistant Director of Purchasing for the Allis-Chambers Mfg. Co., states that oral reporting is "the most effective means of selling an idea,"[20] because it saves time, is adaptable to circumstances, and has a personal touch. However, he feels that written reports should be used when presenting complex ideas and relationships because it lends itself to a good organization of ideas.

Charles A. Huebner studied the flow process of information in a governmental research and development organization, particularly between advanced systems planners and applied research managers in NASA. He discovered that an oral channel of communication was most often used for the transfer of information about advanced systems requirements and that written material served as a backup.[21]

Earlier it was shown that oral communication is used more than written communication by project managers in scientific manufacturing. Although the figures quoted should not be considered representative of all project managers, it can be assumed that oral communication plays a vital role in the management process. Oral reporting techniques can prove to be useful but written reports should not be neglected for they may be used as future references relating to what was said, discussed, or decided at the oral reporting session.

Therefore, an oral method of reporting timely information to project managers in an accurate, brief, and clear manner is the briefing. The writer will now define "briefing" and discuss how it is used by the Air Force.

Briefing

According to the Defense Information School's publication Research and Oral Communication, briefings have existed since military commanders such as Alexander the Great had to rely on accurate information to coordinate action in battle. Therefore "the briefing has a tactical derivation."[22]

Loney indicates that the term"briefing" came into the popular vocabulary during World War II. Military men described their sessions in which pertinent information was disseminated to officers, staff, and combat units as "briefings" which aided in the planning and execution of military operations.[23]

Van Wormer mentions that because of the complexity of the military organization and "the fluid status of global military campaigns," the briefing became "an excellent method" of collecting information from several sources in a short period of time.[24]

Today briefing plays an important role in military, diplomatic, and industrial communication.

After consulting several military dictionaries, the writer found very general definitions of the word "briefing."

The United States Air Force Dictionary defines it as "a brief explanation of something specific."[25] In the Naval Terms Dictionary it is defined as a "conference or meeting held to give instructions for a specific operation."[26] The Dictionary of United States Military Terms for Joint Usage prepared by the Joint Chiefs of Staff, defines briefing as "the act of giving in advance specific instructions or information."[27]

Several other sources provided non-military definitions of briefing:

Glenn Loney defines briefing as "the process of preparing and/or presenting lengthy or complex bodies of material in the best-organized and most condensed form favorable to effective communication in the shortest time." [28]

Van Wormer uses the term as applied to the dissemination of information in an industrial complex. He defines a technical briefing as a "persuasive verbal presentation given by one person or a team of communicators to either an internal or external source."[29]

Analysis of the various definitions indicates that the military stresses "specificity" in their briefings. Two definitions stress brevity. None incorporate the word "clarity" in their definitions.

Here is the writer's definition, an amalgamation of the others: Briefing is an oral form of communicating specific objectives, tasks, or information with Accuracy, Brevity, and Clarity. (The ABC's of Briefing).

To learn more about briefing as a communication technique in the armed services, the writer interviewed two Air Force representatives familiar with it, and also viewed two films prepared by the Air Force about briefing. These were "Effective Briefing" and "The ABC's of Briefing."

As explained to the writer by Captain Guy Brown of the Ohio State University Department of Air Force Aerospace Studies (AFROTC) and Warren Aiken (Lt. Col., USAF, ret.), there are twelve types of briefings used by the Air Force. The other services use similar type briefings but may be classified under different names. Each type is aimed towards a specific audience and each has different objectives. Time length varies depending upon the situation and the amount of content to be communicated.

The writer realized after the interviews that each briefing could be classified according to how the communication flowed within the military hierarchical structure.

Some briefings involve one level of command communicating to the same level of command. This represents horizontal flow of communication. Other briefings involve one level of command briefing another level of command. This is vertical flow of communication. At times a command level briefs individuals or groups not within the military organization. This is a radial flow of communication.

It should also be indicated that the communication within the organization can be two-way such as back and forth horizontally, upward and downward vertically, and in and out radially. The twelve types of briefings will be categorized according to the direction of flow from the source to the receiver.

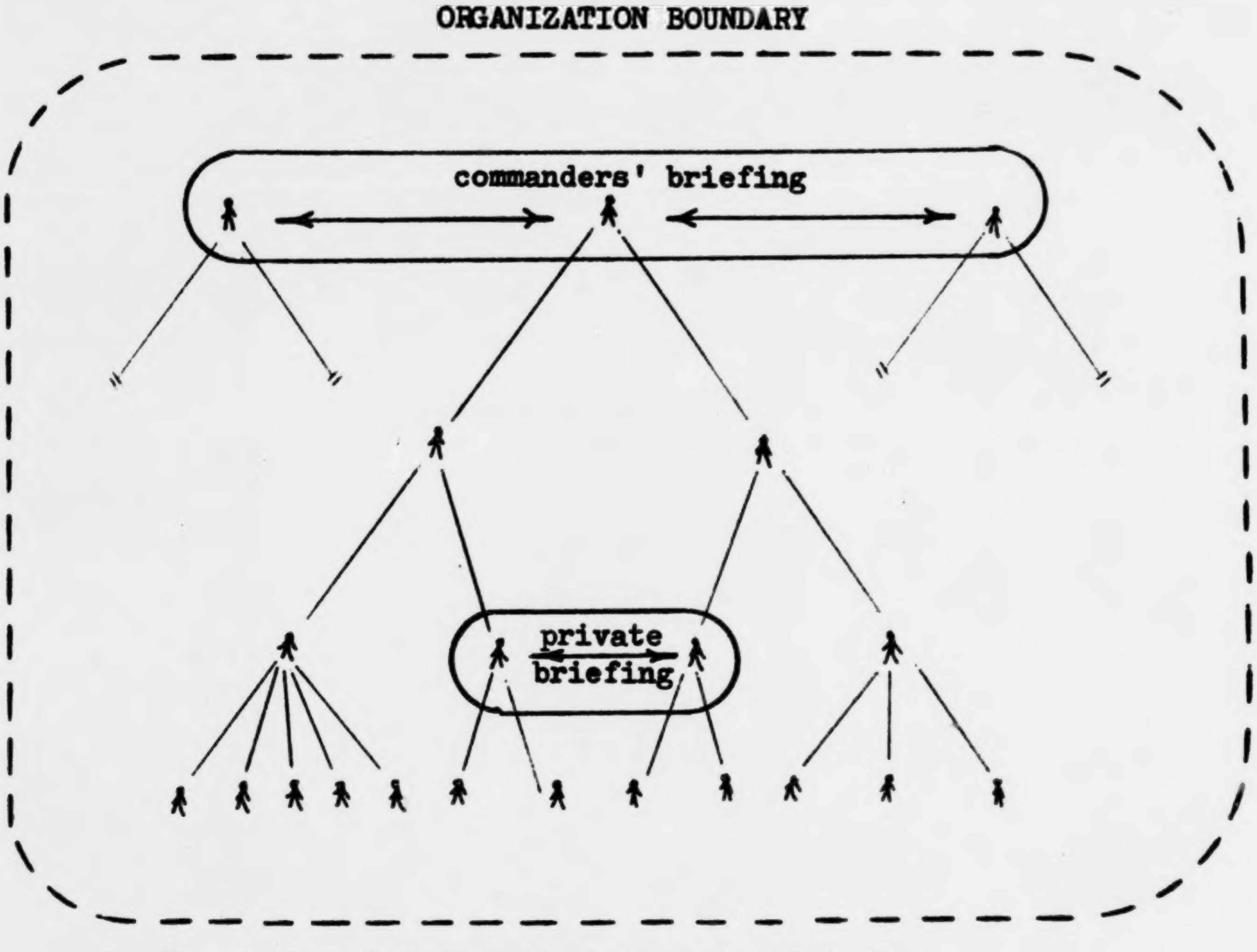
ORGANIZATION BOUNDARY
commanders' briefing
private briefing

Fig. 1.3 -- Briefings having horizontal flow within a military organization.

Horizontal briefings

When communication follows a horizontal flow pattern between identical levels it aims to correct existing problems and coordinate work flow processes.[30] (See Figure 1.3)

The commanders' briefing fits into this category. Here top-level information is given to other commanders and decisions are made. It could be compared to a Board of Directors' Meeting.

Private and interface briefings (two phases of the project brought together) also belong in this category but will be discussed under vertical briefings.

Vertical briefings

Generally, studies in industry and governmental agencies indicate that people want to speak to higher status rather than lower status persons because the former has the power to create for subordinates either gratifying or depriving experiences -- tangible decisions or rewards.[31]

Berelson states that communications down the organizational hierarchy are likely to be critical, and the communications up the hierarchy are likely to be commendatory.[32] However, this cannot be generalized to all forms of communication because briefings are more involved with the passing of information and decisions.

The writer has divided vertical briefings into the following sub-categories: 1) vertical upward where lower command reports to higher command, 2) vertical downward where higher command reports to lower command, and 3) vertical upward and downward where there is more of a sharing of information.

Vertical upward

Berelson states that "the more rigidly or formally organized the hierarchy, the less the upward flow of information.[33] This is particularly true in the military. Blau (1955) found in a study of a governmental agency that subordinates consulted with one another about difficult decisions rather than with their own supervisor, lest he interpret such consultation as indecisiveness or weakness.[34]

In the Air Force, the three types of briefings that are vertical upward are the command briefing, the commander's staff meeting, and the stand-up briefing. (See Figure 1.4, p. 27).

The command briefing.--In the command briefing, the lower command prepares a report for top level command so that decisions may be made. This is equivalent to the executive report mentioned earlier. An example of the command briefing in the Air Force was when former Secretary of the Air Force, Dr. Harold Brown under the Johnson Administration requested a briefing in the state of affairs of the Air Training Command when he entered office.[35] Material covering missions, facilities, organization, and problems was prepared in book-form supplemented with visuals and sent to him in Washington. Normally the command briefing is presented at the headquarters. Narration along with 35-mm slides is made explicit by incorporating statements of mission, organization, facilities, personnel, problems, and history.

The how-goes-it briefing.--The commander's staff meeting is usually held at weekly intervals, but sometimes monthly or annually. Seated at a conference table, each staff member reports on progress in his assigned area. However, by special request during the meeting some members may give a short "how-goes-it?" briefing, i.e., a special program he is directing.

Discussion may take place on certain topics, but any decisions are made only by the presiding officer. No vote is taken on any issues.

Stand-up briefing.--There are times when a high ranking official must be given a briefing about a certain area. For example, the commander of the Air University, a three star general, visiting the Department of Aerospace Studies at Ohio State may desire a briefing on the success of a new course being given to first year airmen. The result is a stand-up briefing whereby the person giving the briefing wears his best dress uniform, stands at all times, and delivers a well-prepared presentation. Sometimes a team may give the briefing.

Vertical downward

This represents the most common flow pattern within an organization. In the military, the command from an officer is a well-known downward flow of communication. The flying briefing and the newcomers briefing belong to this category.

The flying briefing.--The flying briefing, familiar to viewers in World War II motion pictures, involves a commanding officer briefing his air crews on their mission, weather, air route to the target, target and ordnance information and alternate plans. During combat missions, pilots would receive additional information on intelligence such as placement of anti-aircraft weapons and the location of friendly troops. However, the objective or mission is of first priority.

The newcomers' briefing.--The newcomers' briefing is an orientation to personnel arriving at a base. This would include servicemen entering the service as well as transferees. The newcomers are exposed to facilities, procedures, protocol, organization, and personnel. Tours are often included with the briefings. Therefore, it can take several days to complete the organization.

Vertical upward and/or downward

Sometimes a briefing session may include several briefings. Representatives from different levels of the military organization are present to brief each other in a coordinated effort. They may plan a solution to a problem, report progress from various areas within a project, or coordinate several projects occuring concurrently.

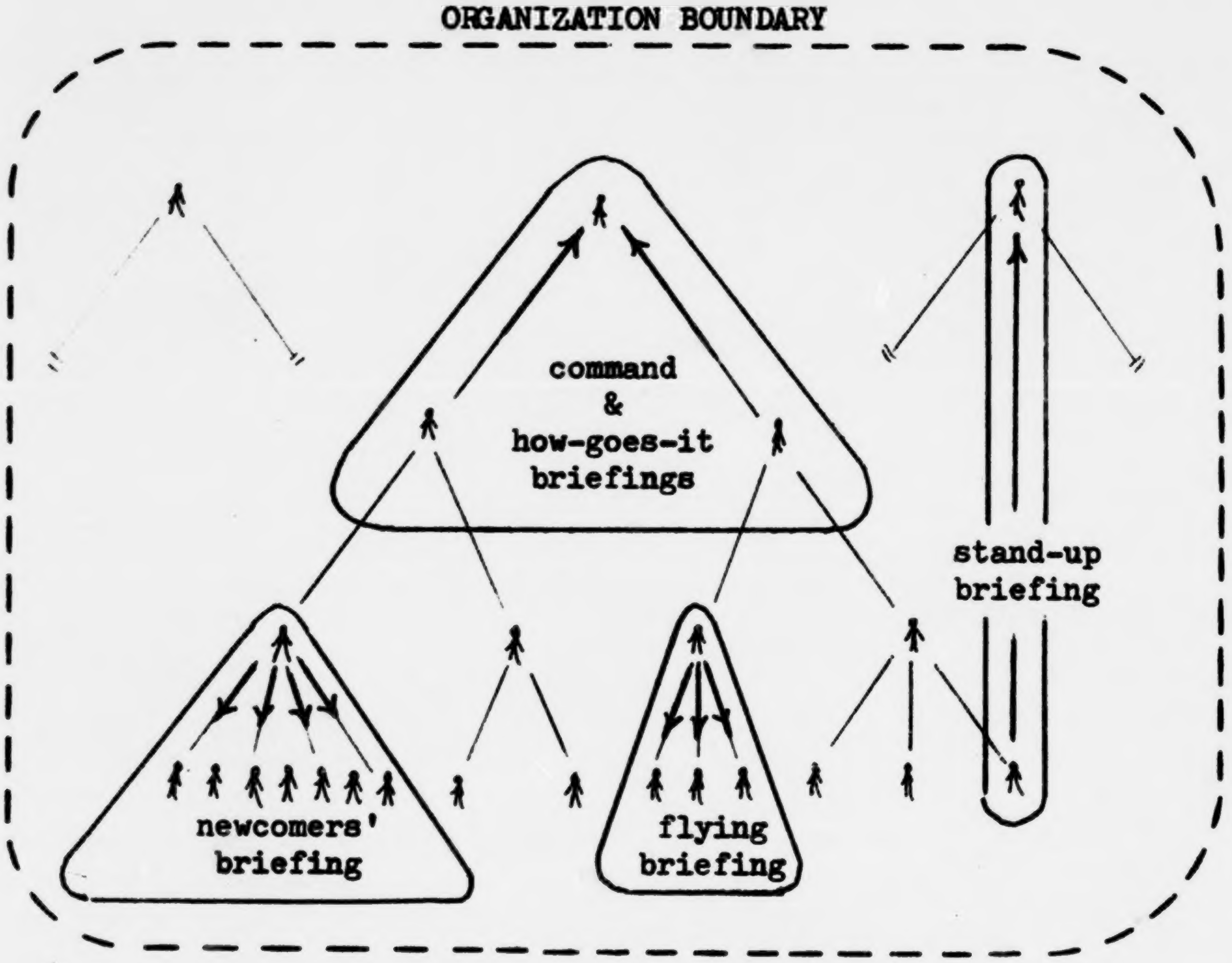
ORGANIZATION BOUNDARY
command
&
how-goes-it
briefings
stand-up
briefing
newcomers'
briefing
flying
briefing

Fig. 1.4 -- Briefings having upward or downward vertical flow patterns within a military organization.

Included within this category are the specialized briefing, project briefing, and interface briefing. Communication flow during each type of briefing may be vertical upward, vertical downward, or horizontal depending upon whose turn it is to brief the participants of the briefing. Sometimes it is necessary to bring in outsiders to the briefing such as a consultant from an industrial firm.

This would represent a "radial" type flow of communication which will be considered within the next few pages. (See Figure 1.5, P. 30).

A specialized briefing.--This is a specific design of presentations of specifically ordered material. The general format followed in the specialized briefing is 1) statement of the problem, 2) definition of words and terms, 3) statement of factors bearing on the problem, 4) statement of the circumstances operating, 5) statement of possible solutions, 6) discussion of each solution objectively, 7) recommendation of the best solution, and 8) discussion of the procedures followed to carry out the decision or solution.

Project briefing.--Usually some time after the specialized briefing, the project briefing follows. Such topics as progress, status, work remaining to be done, time charts, schedules, and problems to be solved are reported. If problems arise within the project, a new specialized briefing may be called.

Progress briefing.--Once the project is under way, progress briefings are given to inform all concerned about the status of the project.

Interface briefing.--The interface briefing, mentioned previously as a horizontal form, is interesting because two or more disciplines are brought together that apply to the project. Perhaps the most familiar example to which this type of briefing has been used was in the Apollo 8 project. Each stage of the Apollo launch vehicle was constructed by a different aircraft corporation. Through the use of the interface briefings, each corporation was able to maintain consistency so that when the time came to interlock the various stages of the moonship all parts would fit together.

Private briefing.--Apart from the project briefings is the private briefing which has several ways of communication flow. This type of briefing is usually a small informal meeting involving a specific individual request. For example, a lieutenant may brief another lieutenant on the availability of aircraft for a practice drill, or a sergeant may brief a captain on the expenditure on office supplies.

Radial briefings

A briefing to an individual or group not belonging to the organization but with indirect ties to the organization would receive a radial type briefing. Already mentioned was how a consultant from the outside may participate in an interface briefing. Another type used by the Air Force is the visiting groups briefing.

A visiting groups briefing is usually a standardized briefing given to a non-military group such as a city council, a club, or small organization. Usually, general facts about the base are given. Normally people come to the base headquarters and are briefed about what they will see. Then a tour is given which may be followed with another short briefing.

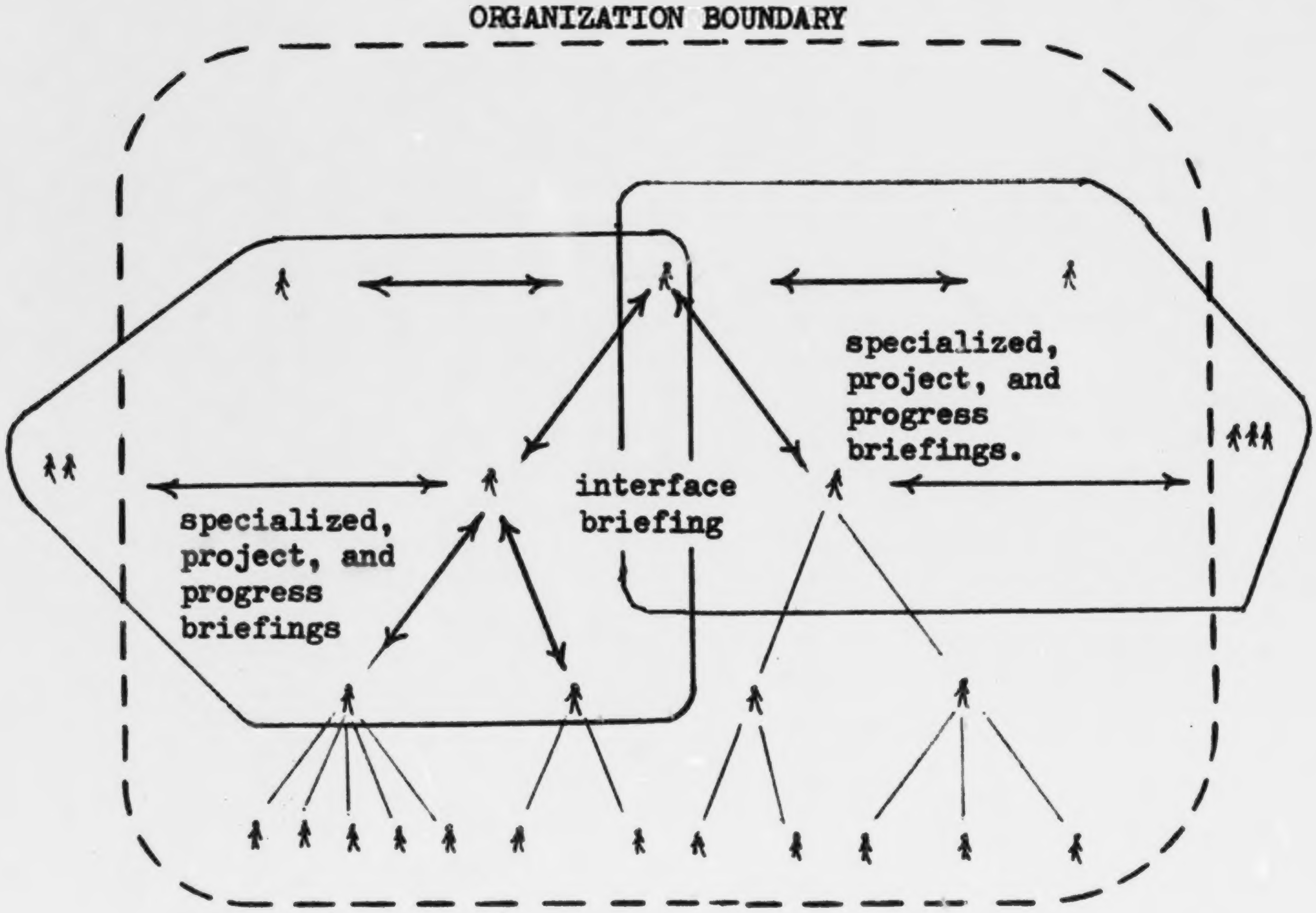
ORGANIZATION BOUNDARY
specialized, project, and progress briefings.
interface briefing
specialized, project, and progress briefings

Fig. 1.5 — Briefings having upward vertical, downward vertical and horizontal flows within a military organization.

Summary

The types of briefings the Air Force uses may be applied equally well to project management. That is briefings within the project also may have a horizontal, vertical, or radial flow pattern. Of all the briefings described, the specialized, project, progress, and interface briefings would be most useful to project management.

Therefore this chapter has introduced the reader to the purpose of this study and the terminology used such as project management, project manager, communication, reports, and briefing which were defined, discussed, and interrelated.

Using the Air Force as a representative example of an organization, the writer has discussed and grouped the types of briefings used according to their communication flow patterns, i.e., vertical, horizontal, or radial. In Chapter Two the writer will discuss how the briefing is a process of communication.

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CHAPTER II

BRIEFING: A PROCESS OF COMMUNICATION

Introduction

Delivering a briefing is obviously a process of communicating. Here, process means the interaction of ingredients in a dynamic situation. To better describe what is meant by "interaction of ingredients," this writer has included a short history of "verbal" and "visual" communication models that utilize the ingredients of communication.

Communication Models

Verbal models

Verbal models are written descriptions about the communication process and visual models are written descriptions with an accompanying diagram. The earliest recorded verbal model was that of Aristotle's in his Rhetorica. Written 300 years before the Christian Centuries, he called communication "rhetoric" and spoke of three elements within the process:

> "Rhetoric falls into three divisions, determined by the three classes of listeners to speeches. For of the three elements in speech-making -- speaker, subject, and person addressed -- it is the last one, the hearer, that determines the speech's end and object. (1)

Although Aristotle's model may have inferred that a channel such as the voice existed, he did not state so as do more modern accounts, i.e., models of Lasswell or Berlo. However, it did emphasize the listener--a key factor included in Berlo's S-M-C-R Model discussed later. (Chapter Four)

The Aristolean model prompted Harold Lasswell ("The Structure and Function of Communication in Society," 1948) to ask the following question: Who says what in which channel to whom with what effect?"[2]

These represented only two of the many verbal models proposed by others. Many were lengthy. had limited use, and were oriented in a one-way fashion, i.e., from source to receiver.

Visual models

Contrasted to the non-visual models were the visual models with verbal description such as the Claude Shannon and Warren Weaver model proposed in the late 1940's. Their model reduced the communication process to a set of mathematical formulae and showed ways of solving problems with it.

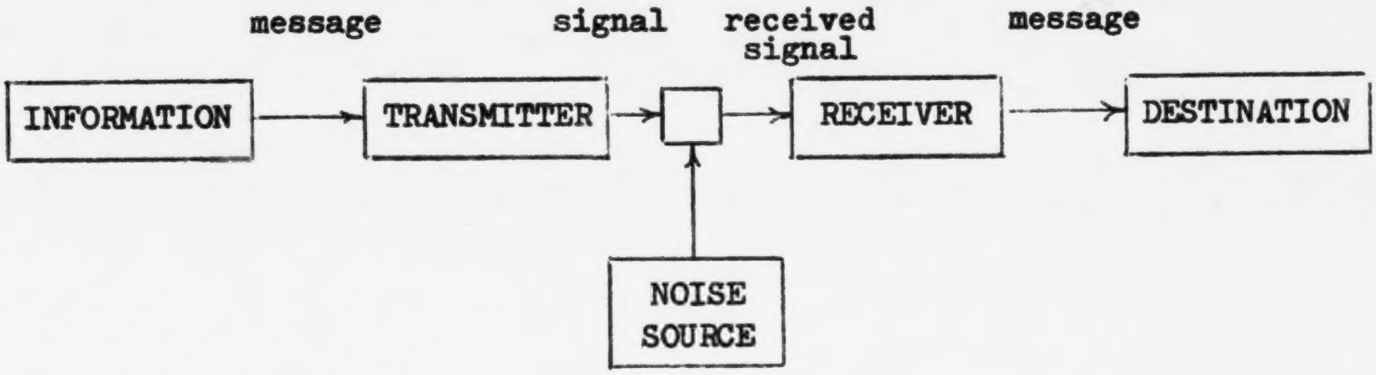
message
signal
received signal
message
INFORMATION
TRANSMITTER
RECEIVER
DESTINATION
NOISE SOURCE

Fig. 2.1 -- Schematic diagram of the Shannon and Weaver Model.

Although it consisted of five communication elements -- 1) an information source, 2) a transmitter, 3) a channel, 4) a receiver, and 5) a destination-- it did not help one interested in human communication gain an understanding of social and psychological factors operating within the process of communication. Figure 2.1 shows the basic structure of their model.

In the mid 1950's, C.K. Ogden and I.A. Richards proposed a more "humanized" model which stressed the triadic nature of "meaningful" situations involving thoughts, symbols, and referents represented by the three apexes of a triangle. (See Figure 2.2)[3] Between the apexes are relations either causal, as between thought and symbol or as between thought and referent (what is thought about), or imputed relations, as between symbol and referent.

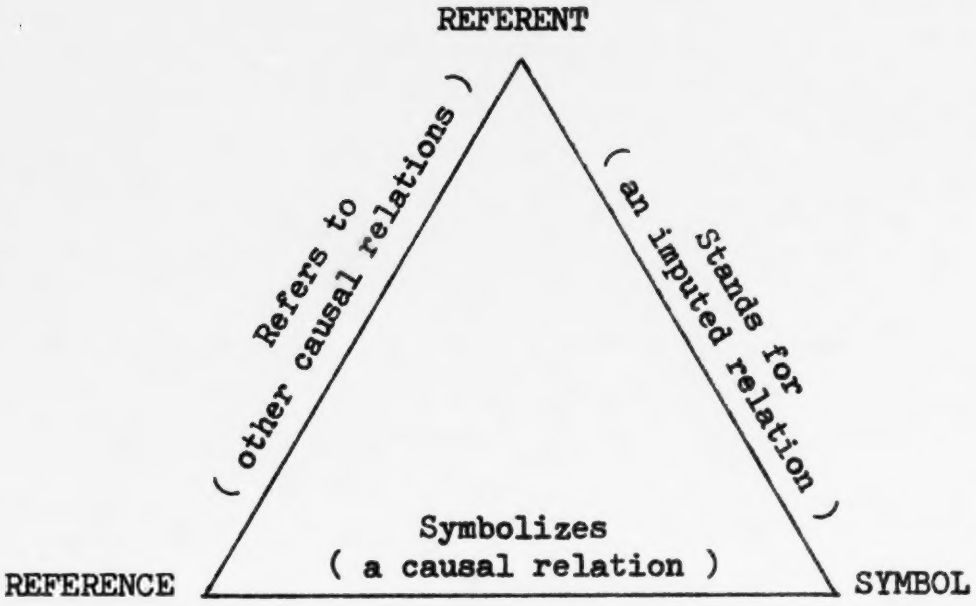
REFERENT
Refers to
(other causal relations)
Stands for
(an imputed relation)
Symbolizes
(a causal relation)
REFERENCE
SYMBOL

Fig. 2.2 -- The Ogden-Richards Model
(From Cherry, p. 113)

The Ogden-Richards' model opened the way for other more sophisticated models such as the Osgood Dispositional Model which consisted of four levels: the message level, the sensory and motor skills level, the dispositional level, and the representational level. (Refer to Figure 2.3)

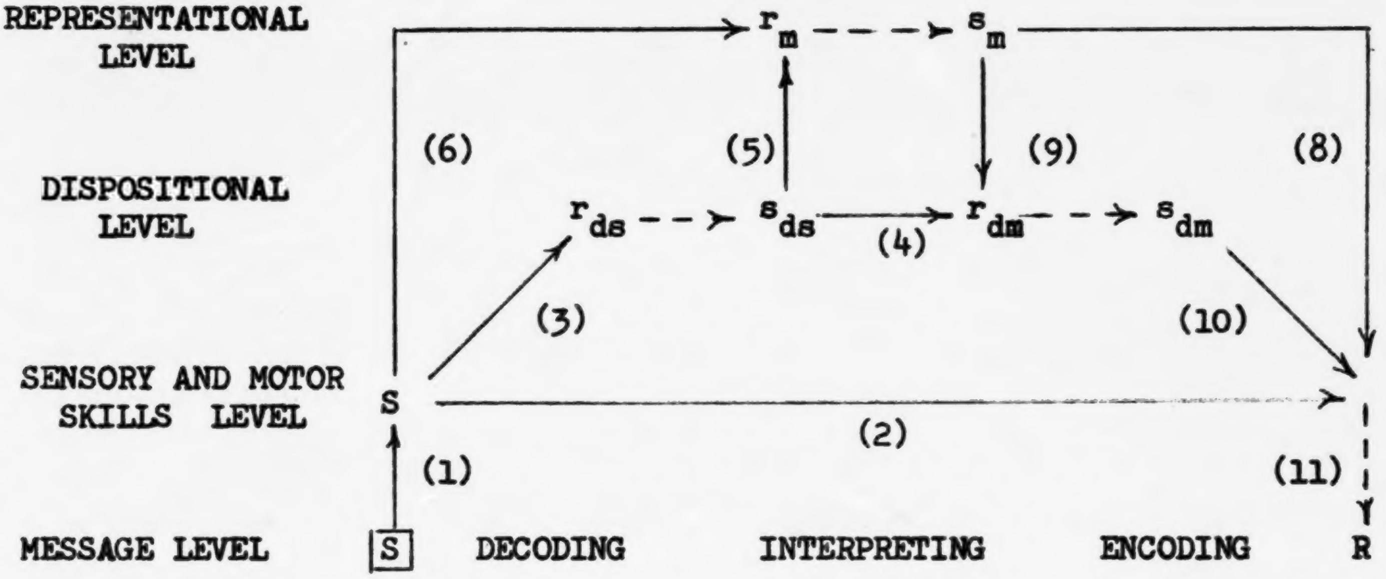
REPRESENTATIONAL LEVEL
DISPOSITIONAL LEVEL
SENSORY AND MOTOR SKILLS LEVEL
MESSAGE LEVEL
r_m
s_m
r_{ds}
s_{ds}
r_{dm}
s_{dm}
S
S
R
(1)
(2)
(3)
(4)
(5)
(6)
(8)
(9)
(10)
(11)
DECODING
INTERPRETING
ENCODING

Fig. 2.3 -- The Osgood Dispositional Model
(From Schramm, p.12)

At the message level, the stimuli are present in the environment. When the receiver becomes aware of them, the message has been accepted at the sensory and motor skill level. If it evokes an immediate response, such as a reflex, the process has been completed (Path 1-2-11). If the stimuli are complex enough to require translation into a grammatical response, it goes to the dispositional level.

If the stimulus is well-learned, it need not go to the representational level where thinking occurs. For example when someone asks "How much are two and two?," we almost automatically follow with "four." This path would be 1-3-4-10-11.

Frequently the stimulus must be decoded into a code or language, fed through intervening variables (i.e. attitudes, values, and sets), and sent to the representational level of the central nervous system where meanings are assigned and ideas analyzed so that an interpretation can be made of the original stimuli. For example the question may be asked of the receiver, "Why do you feel that education is important?" The person receiving the stimuli must send it to the representational level where he draws upon known data stored. When the message is decoded, the receiver becomes the source and encodes his message to be delivered to the person asking the question (Path 1-3-5-7-9-10-11 or 1-6-7-9-8-11).

Both the Ogden-Richards' Model and Osgood Model do not deal with the communication process totally but deal with specific parts such as the receiver, decoding, and encoding with neglect of specific aspects of the source, channel, and message.

Other attempts were made to describe models of communication that showed oral communication between two persons. One such model was described by Wendell Johnson.

Although his model was more specifically oriented to physiological and physical aspects, it did show that communication is a constantly changing two-way process whereby the speaker can become the receiver and vice versa. However, Johnson neglected to consider how the message is encoded or decoded. (See Figure 2.4)[5]

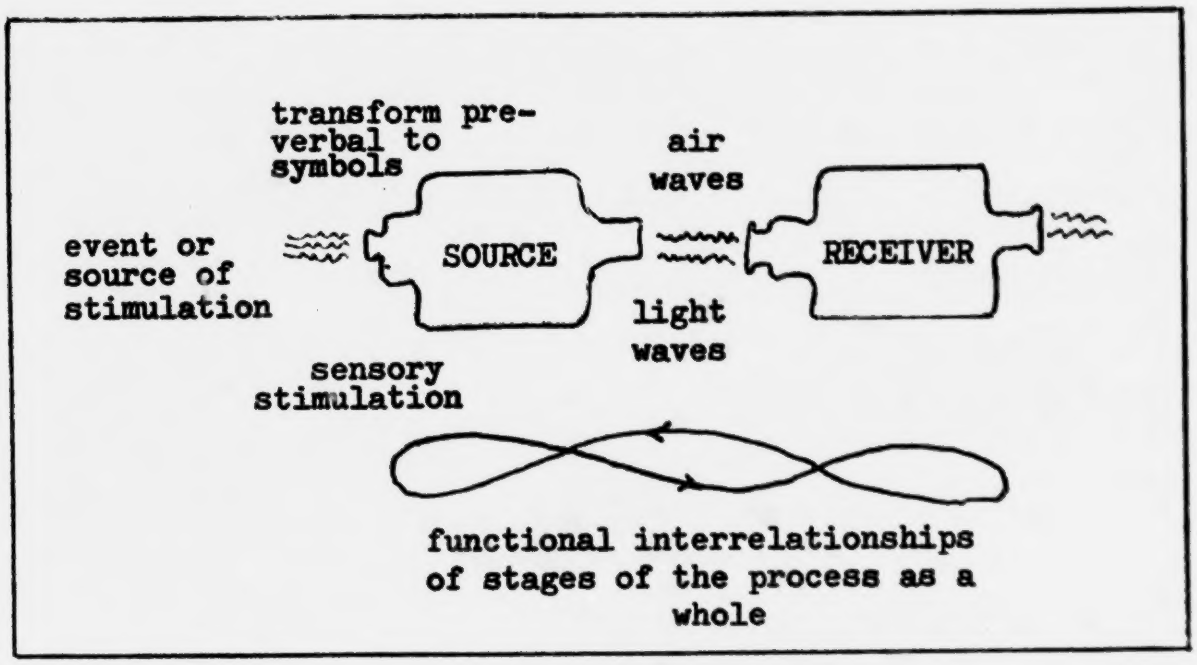
transform pre-verbal to symbols
air waves
event or source of stimulation
SOURCE
RECEIVER
light waves
sensory stimulation
functional interrelationships of stages of the process as a whole

Fig. 2.4 -- The Johnson Model.
(From Bettinghaus, p. 23)

Halbert Gulley therefore amalgamated the Johnson Model and the Osgood Model. Although Osgood's mediation concepts were shown visually in the model, the nature of the mediating processes occuring within the source or receiver were not specified.[6] (See Figure 2.5)

The Johnson and Gulley Models showed that 1) communication is a process, and that 2) communication is a two-way process. However, neither described the nature of the message, or other channels that would be available.[7]

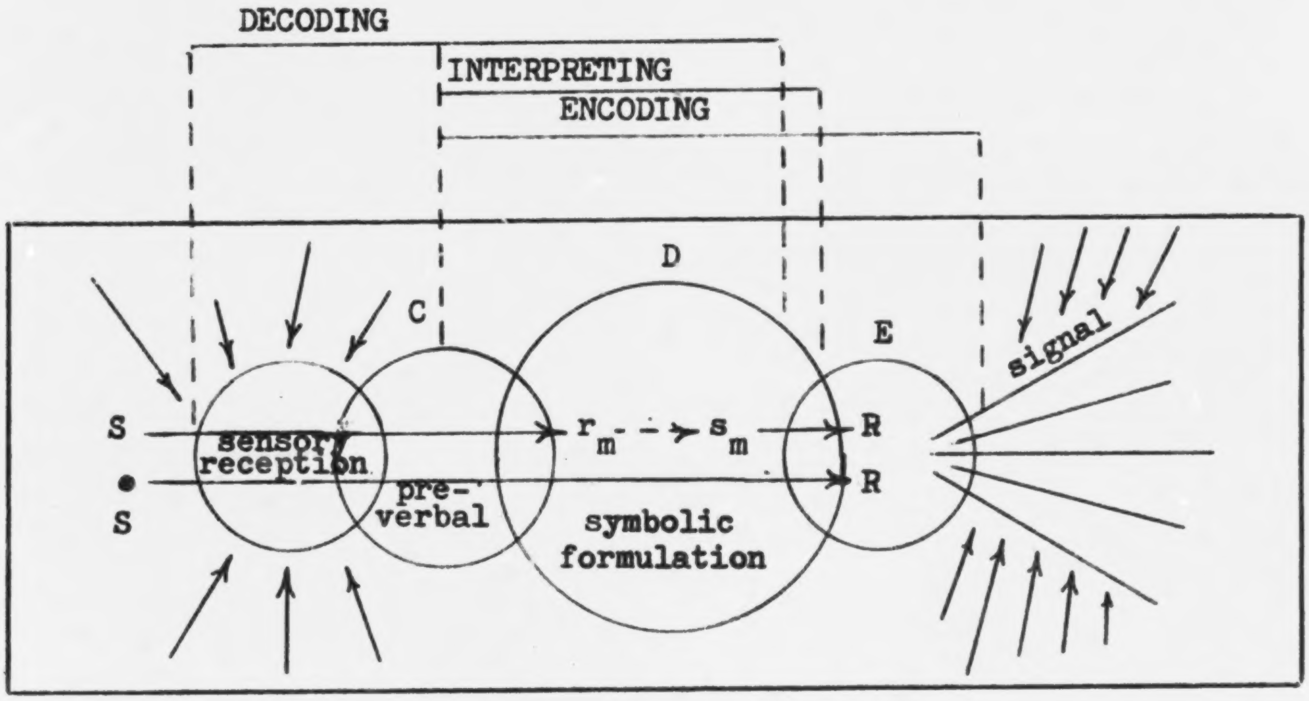
DECODING
INTERPRETING
ENCODING
C
D
E
S
S
sensory reception
pre-verbal
$r_m - - \rightarrow s_m$
symbolic formulation
R
R
signal

Fig. 2.5 -- The Gulley Model.
(From Bettinghaus, p.24)

The author has given a short resumé of some of the communication models that have existed or are still in use today. None deal with all possible aspects of the communication process.

A model, not yet discussed, that possesses most of the ingredients found in a briefing situation is David Berlo's S-M-C-R Model (Source-Message-Channel-Receiver). Not only does it emphasize the psychological nature of communication as it affects both the source and the receiver, but it also provides an analysis of message and sensory channels used in communication. Berlo's Model, therefore, should suffice as a foundation in the discussion of briefing techniques.

Briefing: An Application to a Communication Model

Since a briefing is a process of communication, it is necessary that the source of the briefing, the briefer, is understood by his listeners. Berlo calls this "high fidelity."

In other words, if a person attending a briefing session accurately interprets the message of the communicator, a high fidelity situation exists. The process of communicating would be considered effective. Conversely, a communication situation with considerable interference would produce low fidelity and be ineffective.

It is always necessary that a briefing be given so that high fidelity is established. For this to occur, it is necessary to look at each aspect of the communication process, specifically in reference to Berlo's S-M-C-R Model. (See Figure 2.6)

The source

All briefings require a source which may be a person or a team. Variables determining the communicative capabilities of the source are his communication skills, attitudes, knowledge level, and position within the social-cultural system.

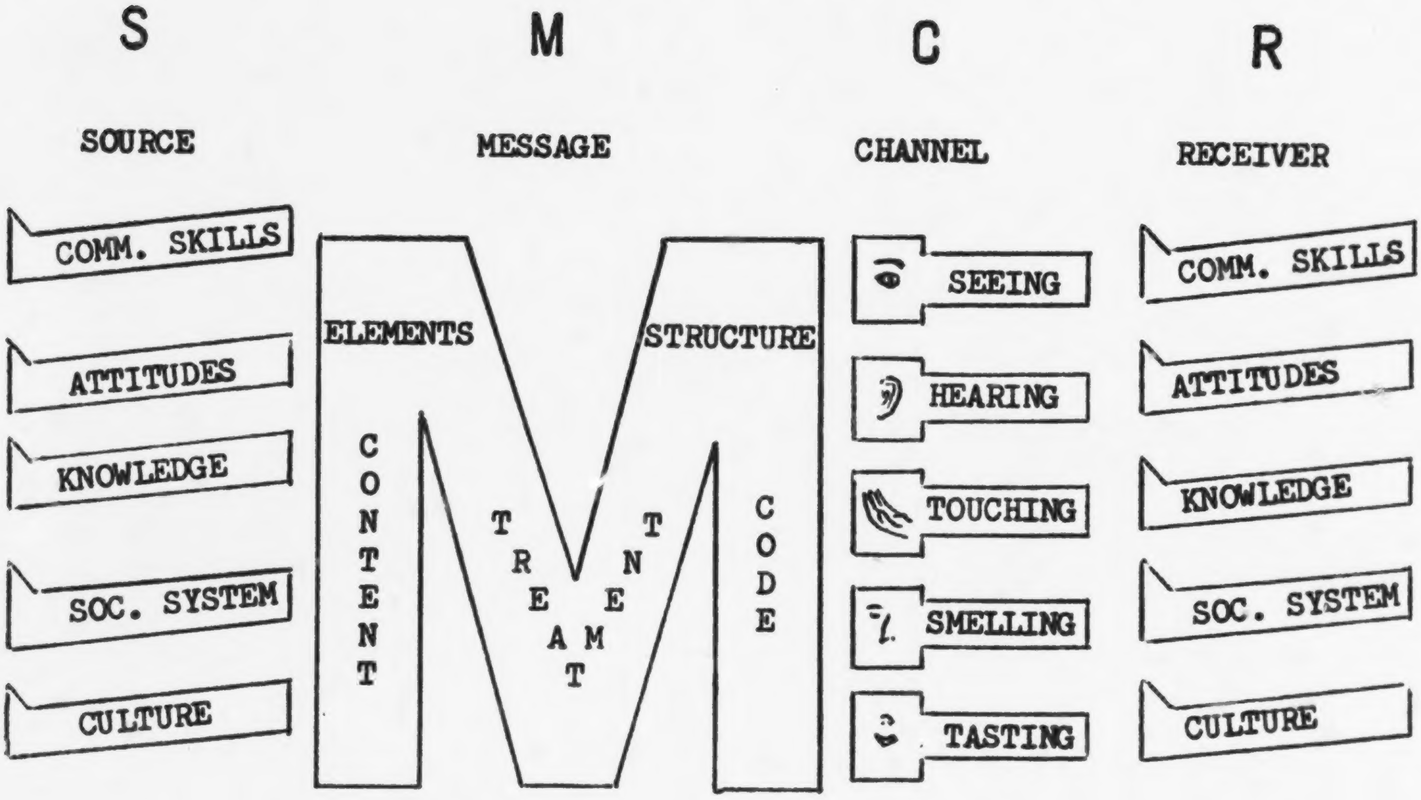
S
M
C
R
SOURCE
MESSAGE
CHANNEL
RECEIVER
COMM. SKILLS
ATTITUDES
KNOWLEDGE
SOC. SYSTEM
CULTURE
ELEMENTS
STRUCTURE
CONTENT
TREATMENT
CODE
SEEING
HEARING
TOUCHING
SMELLING
TASTING
COMM. SKILLS
ATTITUDES
KNOWLEDGE
SOC. SYSTEM
CULTURE

Fig. 2.6 -- Berlo's S-M-C-R Model.

(From Berlo, p. 72)

Communication encoding skills such as speaking, writing, and drawing abilities determine the success of the source's delivery. Further, the ability to think rationally is necessary. A breakdown in communication can occur if the source cannot encode his message.

Four principles of effective encoding as summarized by Edgar Dale are that the source (1) should prepare the materials so that they are clear and precise, and (2) should get the attention of the receiver who (3) must believe what is said by the source in order that (4) he may act.[8]

Lee Davenport states that the source must know what he wants to communicate. Besides having a clear purpose of the message in mind, he also should have the facts well-organized. He also must be "language conscious" by fitting the language to the audience.[9]

Therefore, an effective communicator has a highly developed proficiency in communication skills, a topic which will be developed more fully in Chapter Three.

Further, the attitudes of a source can affect the communication process. A definition widely accepted, especially among psychologists, is that an attitude is a "predisposition to response in any situation."[10] The source usually has attitudes about the subject, towards the audience, towards the channel used for delivery, and about himself.

Jay M. Jackson states "the effect of any particular communication will depend largely upon the prior feelings and attitudes that the parties concerned have towards one another."[11]

Without considering the positive, neutral, or negative attitudes toward certain phases of the communication process a breakdown could occur.

Third, lacking knowledge of the subject matter, audience characteristics, and the process of communication can influence the success of the communicator. A poorly informed source certainly can cause a breakdown.

The position the source occupies in the social-cultural system can determine the group he belongs to and the influence those groups have upon his values, beliefs, and expectations.

Jay M. Jackson feels that an organization is a system of overlapping and interdependent groups. People will tend to communicate to those geographically close to them. As spatial distance increases, chance for communication occuring diminishes.[12]

Within an organization the people are structured into different systems of relationships:

a) work structure: special tasks are performed by specific people.

b) authority structure: these people are responsible to direct activities.

c) status structure: this group has the rights and privileges.

d) prestige structure: permits person to expect different behavior from others.

e) friendship structure: based on feelings of interpersonal trust.

These various relationships can determine the extent and purpose of the communication. Each day the source can be involved within several of the structures listed. He must be able to adapt to the various situations so that he can accurately communicate well with others.

A source's beliefs may be through fears, desires, or consensus, i.e., a tacit agreement among members of the social group. According to Thayer, a belief serves two functions: "1) it alleviates doubts and uncertainties and 2) it serves to systematize or make consistent one's behavior."[13] How strong a person's beliefs are depends upon 1) how important the issue is to the person and 2) the amount of consensus among his colleagues.

Referring to expectations and motives, Jackson states that "the consequences of communication are limited by people's interest in achieving certain effects, and lack of concern about achieving others."[14] People, in other words, tend to remember and feel committed to decisions consistent with their own expectations and motives.

The receiver

People at the receiving end of the communication process possess the same characteristics as the source since they also can be communicators depending upon the direction of flow at the time of the delivery. Therefore, a person receiving communication from the source must also possess communication skills, attitudes, knowledge level, and occupy a position within the social-cultural system.

For communication from the source to be effective, the receiver must have attitudes similar to the source's. Conflicting attitudes reduce communication. Communication is also decreased if levels of knowledge between the source and receiver are too divergent.

The ability to decode properly, listen and think logically must characterize both sender and receiver. In addition, the receiver lives within a social-cultural environment. At times he may seek through group opinion and therefore, must be able to communicate clearly and interact with a variety of persons and groups.

Source and receiver interaction

An interesting illustration showing the dynamics of one person interacting with another is the Johari Window.[15] (See Figure 2.7)

	KNOWN TO SOURCE	NOT KNOWN TO SOURCE
KNOWN TO RECEIVERS	I AREA OF FREE ACTIVITY	II BLIND AREA
NOT KNOWN TO RECEIVERS	III AVOIDED OR HIDDEN AREA	IV AREA OF UNKNOWN ACTIVITY

Fig. 2.7 -- The Johari Window of Human Interaction.

The writer has modified it slightly by using the term "source" in place of "self" and "receivers" in place of "others." The Johari Window is a two-by-two table crossing information known by the source and information not known by the source with information known to the receivers or not known to the receivers. The result is a table with four areas.

The first area is the area of free activity. Here, whatever behavior or motivation exists, both the source and receivers are aware of it. However, sometimes the source is unaware of a certain behavior pattern he displays, but the receivers perceive it; or the receivers possess certain information the source does not have. This represents area two, the blind area. When the receivers communicate the information they know to the uninformed source, the blind area is reduced and the area of free activity is expanded.

When the source has knowledge of something the receivers don't know, the avoided or hidden area is present. Likewise this area may be reduced by communicating the information.

The fourth area, the area of unknown activity, is not known by the source or the receivers. Researching and testing of hypotheses would tend to reduce this area and move it into the other three.

During a briefing an area of "free activity" should exist where ideas, information, and feelings are shared and finally understood. However, peculiarities in expression may reveal to the receivers that the source knows something they don't know (area III) or vice versa, the audience knows something the source doesn't know (area II). Non-verbal communication in the form of gestures, facial expressions, and body movements may be signs to either the source or the receiver that a "blind area" or "hidden area" exists. Interaction, therefore, may depend entirely on how the message is structured.

Message

According to David Berlo, a complete message should contain the following ingredients: code, content, and treatment.

He defines a code as "any group of symbols that can be structured in a way that is meaningful to some person." [16] Code can be spoken or written language or a specialized jargon in a particular field. A code is required in all fields such as music, art, mathematics, and photography. Before delivering a message, the source must decide which code to use, what elements comprise the code, and the structure the elements may have.

Similar to code is content, which also requires elements and structuring through planning. According to Berlo, content is "the material in the message that was selected by the source to express his purpose."[17]

When code and content are selected and arranged in a particular way for the message, a treatment is devised.

Treatment of the code and content will significantly be affected by the attitudes, knowledge, communication skills and cultural background of the communicator. For best results, the source would select a code intelligible to his audience.

Although more applicable to mass communication situations, Wilbur Schramm lists four conditions that a message must fulfill in successful communications. First, Schramm states that "the message must be so designed and delivered as to gain the attention of the intended audience."[18] When information is communicated by the source, the receiver tends to consciously and unconsciously select information pertinent to his needs. At times the receiver never receives the messages because the cues of the source do not appeal to him. This is similar to Berlo's reference to treatment of the message because they both involve design of the message. Timing and planning are essential in designing the message properly so that the cues will appeal to the receiver's interests.

The second condition Schramm lists is that "the message must employ signs which refer to experience common to both source and destination, in order to 'get the meaning across'."[19] This is similar to Berlo's use of "code." If the source uses the wrong code or signs that are totally unfamiliar to his audience, communication is extremely ineffective.

The third and fourth conditions Schramm mentions apply largely to communication situations involving persuasion or entertainment. One is that "the message must arouse personality needs in the destination and suggest some way to meet those needs."[20] Many briefing situations are informational in nature. However an informative type briefing concerning border disputes between two nations held at a Security Council meeting of the United Nations could arouse nationalistic feelings from the countries involved. Similarly, at a project briefing, emotions and needs could come into play if a department was not performing up to standard, for example.

The fourth and last condition Schramm lists is that "the message must suggest a way to meet those needs which is appropriate to the group situation in which the destination finds himself at the time when he is moved to make the desired response."[21] Through groups we learn most of our standards, values and roles. Most of our communication responses are in groups. Frequently the responses made are to acquire group approval.

McCloskey best summarizes the place the message occupies in the communication process by interpreting each phrase of the process in terms of the message. This can be applied to a briefing situation.

On the following page is the simple model he used.

(1) (2) (3) (4) (5)
SOURCE → ENCODE → TRANSMIT → DECODE → RESPONSE

An explanation of each phase follows:

1) The source has ideas or facts he wants others to understand.

2) The source selects words, gestures, or pictures to *prepare* a *message* he hopes others will notice and understand.

3) He tries to *deliver* his *message* by means of conversations, discussions, letters, bulletins, etc.

4) Those who notice the *message* *interpret* it in a framework of their own interests, attitudes, and group relations.

5) Those receiving may decide to *think about* the *message* to discuss it with the source to support or oppose his ideas or do nothing about it.[22]

The writer, instead of including a separate chapter about the *message*, has incorporated it within the following three chapters: The Briefer, The Receiver, and The Channel.

Chapter Three, The Briefer, is concerned in part with how the briefer *plans* his message. Chapter Four, The Receiver, is concerned in part with how the message may be *perceived* and *interpreted*. The last chapter, The Channel, is concerned in part with how the message can be sent with an emphasis on the visual element, i.e., ways of *visually* showing information which supplements the briefer's oral presentation.

The channel

A channel in the communication process has been defined several ways. Shannon and Weaver define it "as the medium used to transmit the signal from transmitter to receiver."[23] In their visualization of channel in the communication process, the channel is represented by a band of radio frequencies, a pair of wires, or a coaxial cable.

Berlo's definitions of "channel" take into consideration man within the process. His definitions are compared to modes such as encoding and decoding the message, the message vehicle, and the message carrier. More simply these can be compared respectively to our senses, forms of energy, and a medium for transmitting the energy.

The channel serves as the link between the source and the receiver. The source with supplementary audiovisual equipment deliver the energy in the form of light and sound to the receptor organs or eyes and ears of the receiver where the energy is converted into aural or visual patterns.

Sometimes extraneous light and sound energy from other sources compete enough with the message to produce an interference or "channel noise." Also the sensory organs of touch, taste, and smell can compete with the message receptors, i.e., eye and ear, to cause the message to be ineffective. For example, a sharp pain, foul taste, or putrid odor could temporarily distract the reception of the message

3

and reduce the communication fidelity.

The writer discusses in each of the following chapters types of noise that can occur. In Chapter Three, there is a short discussion on how noise can affect the intelligibility of the briefer's oral presentation. Chapter Four shows how noise can affect the receiver's perception of the briefing; and the last chapter deals with "visual" noise that can occur in materials used during the briefing such as transparencies or 35-mm slides.

Summary

The writer compared several models of the communication process. It was decided that Berlo's S-M-C-R Model was best suited for the purpose of briefing.

The S-M-C-R Model is useful for briefing situations because:

1) It is a simple model for showing a process of human communication.

2) It serves as an adequate foundation from which the briefing can be applied as a process for communicating reports to management.

3) It considers psychological and social aspects of the source and the receiver.

As applied to the briefer, knowledge about a communication process gives him a solid base from which to operate. Realizing that his delivery is affected by internal as well as external variables, the briefer can devise an organized plan to overcome many of the interfering variables.

In the next chapter, the writer focuses on the briefer as the communication source with a consideration of the environment in which the briefing would be delivered.

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11. Jay M. Jackson, "Organization and Its Communication Problems," *Advanced Management*, Vol. XXIV, No. 2 (February, 1959), p. 19.

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16. David K. Berlo, The Process of Communication: An Introduction to Theory and Practice (New York: Holt, Rinehart, and Winston, 1960), p. 57.

17. Ibid., p. 59.

18. Schramm, op. cit., p. 13.

19. Ibid., p. 14.

20. Ibid., p. 14.

21. Ibid., p. 15.

22. McCloskey, op. cit., p. 18.

23. Bettinghaus, op. cit., p. 19.

CHAPTER III

THE BRIEFER: THE SOURCE OF A BRIEFING

Introduction

In Chapter Two several models of communication were presented. Berlo's S-M-C-R model was selected to serve as a foundation for discussion of the various elements of the briefing, i.e., source, message, channel, receiver. This chapter deals specifically with the source, or the briefer, of the briefing.

Charles W. Eliot, noted educator, once said about businessmen:

> "Leading men of business have great needs of a highly trained power of clear and convincing expression . . . Businessmen need in speech and writing all the Roman terseness and the clearness of the French. The graces and eloquences of literary style they can dispense with, but not with the greater qualities of compactness, accuracy, and vigor." (1)

Similarly, the briefer must be accurate, brief, and clear if he intends to communicate orally with his listeners, who in this case would be persons in project management. Later in this chapter, hypothetical examples will be used to illustrate how the briefer may adhere to the three criteria within his briefing--accuracy, brevity, and clarity.

During a briefing, the briefer is the focus of attention. If he fails to communicate the information accurately and clearly to project management, wrong decisions may be made that could lead to serious problems. Therefore, it is necessary that the briefer plan his delivery in an efficient manner.

The Briefer

The briefer may be anybody within the organization having a direct responsibility for some phase of the project. It may be a department supervisor, an assistant director, a graduate assistant, etc. Usually he would be briefing people at a level equal to (horizontal briefing) or higher than (vertical upward) himself in the organizational hierarchy. Therefore, it is important that he 1) have a good educational background, 2) be acquainted with the project's goals and procedures, 3) be skilled in organizing and expressing his thoughts, 4) be knowledgeable in speech techniques, and 5) have a working acquaintance of audio and visual projection systems.[2]

Educational Background

So that the briefer can structure his message for a selective audience such as project management, it is beneficial that he have a broad educational background. This of course is not always possible, especially to a person trained in a specific discipline. However, having some training in psychology, sociology, research methods, and public speaking can help him to better structure his message to his audience. Also through careful and thoughtful planning, the briefer can make his message accurate, brief, and clear so that management will have a sharp understanding of the information.

Planning Before the Briefing

Dale lists the following factors as common mistakes of communicators: 1) ambiguous, diffuse, and unclear aim or purpose, 2) an unclear picture of the audience, 3) lack of brevity, and 4) a wrong selection of media to transport the message.[3] A briefer having these problems could eliminate them through careful planning.

The plan from an engineering viewpoint serves as a medium for organization of topics, audience participation, use of visual materials and procurement of auxillary equipment within an allotted period of time. It can be divided into two phases: 1) the preliminary survey phase, and 2) the organization and preparation phase.

The preliminary survey phase

Before the briefer can organize his plan of delivery, he must first know the purpose of the briefing. Second, he should analyze his audience so that he may better fit the briefing to their needs. And third, he should evaluate the available facilities so that prior preparations may be started to accomodate his audience, his audiovisual materials, and himself.

The controlling purpose

John Dewey once remarked that "a problem well stated is half solved."[4] Similarly, the purpose of the briefing must be defined and objectives determined. The purpose of the briefing is dependent upon its content and the audience. Therefore, the briefer should decide whether his purpose is 1) to disseminate information, 2) to create a problem-solving situation, 3) to persuade, or 4) to make decisions. Without determining the purpose, the briefer could gather and present interesting but irrelevant information.

Frequently with project management the purpose of the briefing would be to inform management of potential problems before they become critical, any significant plan deviations, and unusual situations that would require management's attention.[5]

Audience analysis

Audience analysis is an essential ingredient when planning a briefing because many variables may exist among the participants. Some of the variables are age, sex, race, religion, level of education, intelligence, occupation and/or specialty, economic status, social habits, special interests and abilities, emotional needs and desires, and past experience.

When briefing project management some of the above variables would not take on as much importance as others. For example, when a project manager is being briefed about project status or problems, it may be assumed that age, race, religion, or economic status would not affect his listening comprehension as much as the variables of intelligence, educational background, past experience, and occupational specialty.

The briefer should realize that a well-prepared project manager should be proficient in the principal area the project personnel are investigating and that he should have a basic understanding of management concepts such as planning, controlling, and decision-making. Some project managers have had training in the application of a scientific method to some form of research.

However, the briefer should not assume that every project manager is well-prepared to receive a briefing or has kept up on all the new developments of the project. Therefore, the briefer should determine what is known and what isn't known by his listeners. If a technical jargon is going to be used, definitions should be readily available.

Number attending briefing

The number of people attending the briefing is another factor to consider. As the number increases, the variations within the variables increase. The briefing's content would also tend to become more generalized.

The number in attendance would determine the size of the room needed to accomodate them comfortably. In Chapter Five it is shown how size can determine the method of visually presenting information. The project manager acting as the receiver of a briefing is discussed in Chapter Four.

Frequency of briefing

Some projects would require briefings biweekly or only once a month. The value of the briefing would be related to what Desmond Cook calls the "timeliness in reporting current conditions and the information given with regard to problem areas and possible solutions."[6] When problems are not brought to management's attention soon enough, it leaves little time for correction and often causes additional problems.

Length of briefing

The amount of information to be presented must fit into the allotted time period. Project management may give the briefer from five minutes to an hour for his briefing. The shorter the time period, the more condensed the material must be. But the briefer should be accurate, brief and concise. Auger states "a meeting that lasts an hour and a half is already bordering on the edge of diminishing returns."[7]

Location of briefing

The location of the briefing will be determined by the size of the audience. Both audience size and location will determine the facilities and the extent to which the briefer may use supplementary materials such as projection equipment or display media.

Determination of electrical outlets is important. Van Wormer relates a briefing experience that was ineffectively presented because of the briefer's failure to make a preliminary survey of outlets.[8]

Not all briefings can be delivered in an elaborate room with the best audiovisual facilities and comforts. However a briefing room should possess several basic factors:

1. It should have lighting so that the participants can see their own writing without eye strain.
2. Room darkening may be required for projection equipment such as the 35-mm slide projector, 16-mm projector, and for opaque projectors.
3. Comfortable chairs should be available.
4. Writing surfaces such as a chair, desk or table should be provided.
5. The room should be properly ventilated and maintain a temperature between 68 and 72 degrees Fahrenheit.
6. A suitable background acoustical level (25 to 40 decibels) should be maintained so that all the participants can hear. Acoustical tile on the ceiling of the room lessens the reverberation of sound waves or a hollow sound.

Auger suggests that a good way to check the acoustics of a room is to clap the hands. If there is a hollow sound, the room may be acoustically unfit for a briefing.[9]

7. Space is needed for audiovisual equipment such as projectors, charts, screens, easels, etc.
8. Electrical outlets should be available for equipment operation.

A more elaborate briefing room would have additional characteristics. Edward Hodnett's list contains these items:[10]

(1) The room should be larger than usually needed so that a possible 25 to 50 percent increase in attendance could be accommodated.

(2) Chairs should have arm rests.

(3) A rheostat for the lights should be at the lectern.

Finally, J. Barron Wiley lists requirements that are rarely available. However, when a briefing room is being designed, the following suggestions could be included in the plans if enough money is available:[11]

(1) An adjacent projection room through which motion pictures, slides, and filmstrips could be projected is useful.

(2) Movable wood panelling on the walls driven by motors conceals or exposes projection screen, chalkboards, bulletin boards, charts, and maps.

(3) A control console at the chair or lectern of the briefer allows him to operate light levels, movement of the wall panelling, starting and stopping of the projection equipment, and the intercom to the projection room.

After the what, who, when and where are answered, the briefer should begin to organize and prepare the briefing with accuracy, brevity, and clarity in mind.

Organization and Preparation Phase

Types of plans

There are several ways to plan a briefing. The two types of briefings considered are the informational type and the decision-making type.

The informative briefing's content is arranged according to its substance. The content may be arranged according to its constituents, by succession, by location, by enumeration or by illustration. Some plans may consist of a mixture of more than one arrangement.[12]

The plan of constituents.-- This plan provides answers to the key questions "Who?" "What?" "Where?" "When?" "How?" and "Why?" If project management is being introduced to a new phase of the project or a change, the briefer will find it useful to use this type of plan.

The plan of succession.-- When reporting information on progress, the briefer could use a plan of succession that would show the chronological sequence of events occuring during the project's development.

The plan of location.-- The plan of location shows the utilization or placement of space and/or parts. It could be used for the explanation of a new piece of equipment, for example the use of a computer keypunch or the placement of office space in a relocation project.

The plan of enumeration.-- Some subject matter consists of lists or details in a series. Using a plan of enumeration, a briefer could brief project management about the budget in different areas of the project or time allotments in different phases, etc.

The plan of illustration.-- At times the briefer must communicate abstract and complex ideas. To make the essential characteristics or qualities of the content evident, the briefer would be wise to use a plan of illustration. The briefer communicates with his audience if he uses concrete examples.

If the briefing is for the purpose of decision-making, plans of resemblance should be used. These would show relationships, similarities, and pros-and-cons in order that the participants could make decisions over topics up for consideration. The plan of familiarity and the plan of pros-and-cons are two types to resemblance plans.

The plan of familiarity.-- When explaining a new process or describing a little-known structure, a plan of familiarity is used. The briefer may lead his listeners from the familiar to unfamiliar areas of content or vice versa.

The plan of pros-and-cons.-- When management needs to know the advantages and disadvantages of a subject, the plan of pros-and-cons is useful in pointing out likenesses or differences between objects or processes.

After a plan is selected, it is necessary for the briefer to place the elements in outline form.

The briefing outline

The briefing outline is important to the briefer because 1) it clarifies his thinking, 2) it enables him to spot missing information, 3) it leads to a logical organization, and 4) it provides a convenient checklist.[13]

Preparation of the outline

Aurner and Wolf suggest that the following steps be considered when preparing an outline:

1. Identify the topics related to the purpose of the briefing.
2. List the topics according to their significance.
3. Determine the time available for the briefing.
4. Correlate the topic list with the available time.
5. If necessary, reduce the topic list to fit the briefing period without loss of essential information.
6. Place the items in a logical sequence.
7. Separate the main topics into components.
8. Predict the questions the participants may ask so that they may be covered within the briefing.[14]

An outline example

The following is the writer's hypothetical example of an outline for one short briefing out of several to be presented to the project director of the Curriculum Improvement Project of Metropolis School District:

PROJECT:	Curriculum Improvement Project of Metropolis School District
PHASE:	Science Education
BRIEFER:	Charles Collins - Director of Still Photography, State University
AUDIENCE:	William Seeton - Director of project and Asst. Supt. of Curriculum, Metropolis Schools. Jack Smith - Head of Science Department, Metropolis High School. Robert Brown - Director of A-V Services Dr. Ralph Henderson - College of Biological Sciences, State University. Adam Lake - Professional photographer
PURPOSE:	Information needed on cost and production of 35-mm slides on the topic of invertebrate dissection techniques.
TIME PERIOD:	7:00 P.M. to 7:15 P.M.
DATE:	20 March, 1969
WHERE:	Room 110. Life Science Building, State University.
AVAILABLE FACILITIES:	Seating capacity, 10; two electrical outlets; 20 sq. ft. of board space; one window with shade; screen available.
FACILITIES NEEDED:	One 35-mm carrousel slide projector.
TYPE OF PLAN:	To inform -- Plan of constituents.

OUTLINE:

CONTENT	TIME & VISUALS
A. General photographic problems of dissections	10 min. 35-mm slides of specimens photographed previously
1. Lighting	
2. Film speed	
3. Size lens	
B. Time estimates in photographing specimens	2 min. Chart of times
1. Time in filming earthworm	
2. Time in filming clam	
3. Time in filming starfish	
4. Time in filming grasshopper	
C. Cost estimates in photographing specimens	2 min. Chart of cost estimates
1. For each specimen	
a. earthworm	
b. clam	
c. starfish	
d. grasshopper	
2. For one complete kit	
3. For 15 kits	
D. Schedule of when kits would be available	
1. Optimistic time (earliest)	1 min. Chart showing schedule
2. Most likely time	
3. Pessimistic time (latest)	

The briefer should have the following when his outline is complete"

(1) A clear logical plan on which the information is built

(2) A complete overview of the contents

(3) The identity of all the important information

(4) A relationship between key ideas

(5) A subordination of detail in proper perspective

(6) Ideas in a logical order with brevity in mind

(7) A clearness, unity, and coherence of the presentation

(8) An insurance all listeners will receive the same message[15]

Delivery During the Briefing

Clarity through word usage

After the briefing is thoroughly organized in terms of accuracy, brevity and clarity, the briefer must work on his procedure of delivery. Referring to the previous example, it is assumed that each person at the briefing can speak English. However, this is not always the case. It can also be assumed that each person is a specialist in his own area thereby creating a "specialist's jargon." For example the director of the photography department has to know what "focal length," "exposure," "depth of field" and "grain" mean to understand the basics of photography. Similarly, the biology professor must know "adaptation," "chlorophyll," and "parthenogenesis." In his own field, the curriculum director must be familiar with certain terms such as "core," "non-graded," "accelerated," and "exceptional children."

At times the same term may be used by the photographer, the biologist, and the curriculum director, but have different meanings. For example, according to Webster's New World Dictionary of the American Language the word "develop" in photography means "to put an exposed film, plate, or printing paper in various chemical solutions in order to make a picture visible." To a biologist "develop" means "a gradual growth" such as a developing plant or animal. To an educator "develop" may mean to bring into activity as an idea. This is only one example of how confusion may arise if a term is not defined.

The author has selected a list of words from various fields of communication, i.e., television, photography, and graphics. Although the words have a common usage, their definitions in the individual fields have an entirely different meaning.

These words are considered to be homonyms because they sound the same and are spelled the same but their meaning and usage differ considerably.

Television jargon words

"Cheat: to angle the performer or object toward a particular camera.

Cell: cellulose acetate; a transparent plastic sheet used in preparation of graphic materials.

Fly: objects and scenery hanging from above.

Scoop: TV floodlight.

Barn Doors: metal flaps mounted in front of a spotlight to control spread of light beam.

Snow: electronic picture interference.

Strike: remove certain objects from the set.

Truck: lateral movement of the camera dolly and camera."

From Zettl.[16]

Graphics jargon words

"Bleed: technique of extending the illustration or picture to edges of the page.

Bullet: a filled-in or open circle used to emphasize thoughts.

Chrome: strength of color.

Crop: removal of unneeded area of an illustration by masking or cutting the negative.

Dummy: plan of a magazine or book in its sketched or pasted-up form suggesting final appearance.

Face: a style of type.

Flap: cover paper mounted on the illustration board to protect illustrations.

Gutter: inner margin of a printed page."

From NASA.[17]

Photography jargon terms

"Blimp: sound-absorbent box or cover fitted over a camera to prevent sound of the mechanism being picked up by the microphone.

Dissolve: gradual merging of the end of one shot into the beginning of the next.

Track: to move the camera bodily forward or backward during taking of a shot.

Dolly: a truck on which the camera can be wheeled during a take.

Gate: the part of the camera or projector mechanism in which film is held while each frame is being exposed or projected.

Short Stop: a solution of acetic acid in water that stops development of the film."

From Baddeley.[18]

The author has tried to show why the briefer needs to define technical jargon to clarify for his audience the meaning and usage of the term in his specialty. Many people writing in the field of communication agree.

Dominick A. Barbara, Head of the Speech Department of Karen Horney Clinic, New York City, wrote that "in order to communicate with more purpose and meaning, we of necessity should tend toward a language which is productive and understandable to both the 'speaker' and the 'listener'."[19]

L.H. Byrd writing about effective briefing techniques tells the briefer to talk in terms with which the audience is familiar. Specialized terms should be avoided and any technical terms should be defined. "Anything that can be misunderstood usually will be misunderstood."[20]

Ways of defining terminology

Colloquial, slang, archaic, and obsolete words definitely should be avoided during a briefing. There are several ways a briefer may define specialized terminology during the briefing:

By description.-- The briefer can describe characteristics of the term. For example a "barn door" would have to be explained as metal flaps mounted in front of a spotlight to control the spread of the light beam."[21]

By elements.-- At times the term may have a very broad connotation such as "education," "communication," "life," or "management." The latter could be defined by listing the functions of management -- planning, organizing, directing, and controlling.

By purpose.-- To fit to the context of the briefing, it is sometimes useful to define the technical term according to purpose, for example, "a spectrophotometer is an instrument used for comparing the color intensities of different spectra."

By comparison.-- The technical term would be compared to a term the audience could comprehend better, for example, the camera is similar to the eye, or an alveolus is similar to the cell of a honeycomb.

By what it is not.-- Sometimes it is easier for the briefer to define the term not by what it is, but what it is not. For example the control mechanism of a computer is neither input nor output but an interpreter of instructions.[23]

By synonym.-- The use of more familiar terms helps the audience to interpret the meaning faster. For example, an icon is an image or a pictorial representation.

By origin.-- Dissection of a technical term into its derivations can help to define a term. For example, phototropism is a combination of photo and tropism from the Greek photos (light) and trope (turn). Together they mean to turn toward or away from light. Therefore a plant displays a positive phototropism when it bends toward the light.[24]

Other forms of verbal clarification

Definition alone may not be sufficient enough to clarify the content, therefore, other verbal forms of clarity may be used.[25]

The explanation.-- This can simplify information by isolating significant units and explaining them in greater detail.

Illustration or example.-- Brief, descriptive, factual or hypothetical examples help to reinforce the given information. Raymond Ross states that the illustrations should be truly representative to the point being made.[26]

Statistics.-- These show numerical relationships and reinforce ideas. However by themselves, they are abstract. Therefore, it is necessary to make them more concrete by relating them to known things, then the listener is likely to understand a given trend or correlation, especially when tables and graphs are used.

Comparisons.-- At times it is necessary to use comparisons to make information more clear, vivid, concrete, or specific. Dietrich and Brooks list four criteria that make a comparison satisfactory. They must be 1) logical, 2) meaningful, 3) graphic and 4) original instead of hackneyed and trite.[27]

Restatement.-- Repetition or restatement helps the learning process through reinforcement.

Content may also be clarified through the use of audiovisual materials. This will be discussed in Chapter Five.

Clarity through voice control

Voice control plays an important role during the briefing for an unpleasant voice can be distracting to the listeners. Therefore, in order for an oral briefing to be a success, it is necessary that the briefer have a pleasant, intelligible voice. Voice control is achieved through the ability of the briefer to regulate intensity, pitch, quality, and tempo.

Intensity

Each person speaks with a certain intensity or loudness. Often the noise in our environment determines with what intensity we will talk. We must talk louder in a crowded restaurant than in a library.

Sometimes emotional or psychological factors will affect a person's voice intensity. For example, an attention-seeker would tend to speak louder than a person who lacks confidence and is shy. Likewise, a hearing disability or distance causes a person to speak louder.

The briefer should determine the audience size and the room size in which the briefing will be given. These facts will help the briefer know how loud to project his voice. If audience and room size are large or there is a chance for noise interfering with the briefing, arrangements should be made to have amplifying equipment with external speakers.

Pitch

Pitch or the frequency of the briefer's voice should have pleasing variations and not a monotone. George M. Glasgow found that a person speaking in a monotone was not as effective as one not speaking in a monotone. He reported that "level monopitch decreases audience comprehension of spoken language by approximately ten percent in comparison of the same and similar materials when spoken with good intonation."[28]

The briefer should have a flexible voice possessing a range of pitches. A strained voice, sometimes caused by emotional tension, will sound too high. If the briefer has this problem, he must learn to be more relaxed while speaking.

Quality

It is assumed that an audience of a briefing would want to listen to a speaker who has a rich, clear voice instead of a harsh, nasal, or aspirate voice. Poor voice quality may be caused by improper breath control, partial use of the resonating cavities -- the mouth, throat, and nose -- or anxiety. Correction of these problems is possible by practicing specially designed exercises that may be found in many speech textbooks.

Tempo

When factual material is being delivered to the listener, it is important that the briefer talk at a reasonable rate or tempo so that his audience may comprehend the information without difficulty.

No authors agree on a specific rate of speech. Ross feels a rate of 140 words per minute (WPM) is too slow and 185 WPM is too rapid for normal speaking.[29] Harold Nelson found that college students felt 175 WPM was an acceptable rate for newscasts.[30] Chet Huntley and David Brinkley, television newscasters, together average 175 WPM.[31] In general a briefer should speak more slowly than usual for difficult material and faster for easy material. However, a narrow range should be maintained near his normal speaking rate.

Sometimes the pause is an effective device for emphasis of main points. It is useful in helping the audience remember important points. However, if pauses take on a fixed pattern or rhythm, the audience may soon become disturbed. Therefore, the briefer should practice his speaking rate in front of friends or on tape.

Control of voice intensity, pitch, quality and tempo determine how intelligible the briefer will be to his audience. Intelligibility is also dependent upon pronunciation and articulation as well as noise interference.

Pronunciation

Incorrect pronunciation that does not conform with accepted standards can cause the audience to evaluate and judge the briefer's ability to inform others. Ross feels "the best general rule is to follow the usage of the educated people" within the community.[32] Gilman, Aly, and White state "adequate vocabulary and acceptable pronunciation do not guarantee a speaker's good sense and good judgment, but they suggest his exposure to ideas and information."[33]

Pronunciation is largely dependent upon articulation. A word pronounced poorly because of improper usage of the teeth, tongue, lips, palate, or jaw can be corrected with practice of special exercises. Good articulation leads to good pronunciation which together is more likely to produce effective oral communication.

Noise

Extraneous noise can decrease speech intelligibility. Noisy machinery, people moving outside the room, loud audio-visual equipment all can disturb the briefer's speech.

Selection of a briefing room that is controlled for noise would be advisable. If a good room is not available, the briefer should compensate by increasing his voice intensity and decrease his tempo.

Non-verbal communication

The audience at a briefing besides being aware of the speech patterns of the briefer may also be aware of his facial expressions, gestures, body movements, posture, dress, etc. Each is a form of non-verbal communication.

Little things the briefer may not be aware of may affect his audience to the point that they totally misinterpret the message. A wrong facial expression or gesture can easily distort the message. If the briefer says "I feel the control phase of the project can be done for less than $100," and follows it with a slight smirk, the message takes on a different meaning than if the statement were followed with a look of determination. Following are non-verbal factors that should be considered by the briefer.

Facial expressions

Facial expressions may be intentional or unintentional. A facial expression in conflict with what is being said can have an effect on how the listener preceives the briefing.

Thompson and Meltzer (1964) tried to ascertain the extent to which college students (expressers) could convey to other students (judges) via facial expressions alone, their emotional intent. Fifty expressers portrayed ten emotions to four judges. One result was that the expressions of happiness, love, fear, and determination were more often adequately recognized than disgust, contempt, and suffering.[34]

Eye contact

Eye contact with the audience is a good way to maintain rapport. Bryant and Wallace (1947) feel the speaker should be able to look at his listeners 90% of the time.[35] Martin Cobin says that audiences will react negatively to a speaker with poor eye-contact not because of the eye-contact per se but to underlying conditions, i.e., the speaker's indifference to his audience, or failure to prepare adequately.[36]

Gestures and bodily movement

Some authors describe the different types of speech makers that overreact such as the lectern pounder, the extreme gesturer, the arm folder, the pacer, the fidgeter, the lectern leaner, the fisted and the immobile speaker.[37]

Auger gives them different names and adds a description to each. For example, the "podium gripper" looks as if he is standing on the side of a mountain; the "musician" rattles coins or keys in his pockets while speaking; the "weakling" leans on the lectern; the "pacer" is always on the move; the "bon voyager" has extreme hand gesturing; and the "reader" buries his nose in the notes.[38] All of these types of persons are unpleasant to watch. A rule for a briefer to remember is don't overreact, and appear calm.

Loney states that a gesture should be "natural and sincere." He feels that "movement and gesture should grow naturally out of one's normal body activity in daily conversation" and be refined for formal speaking occasions.[39]

Ross classifies gestures into two types: 1) reinforcing and 2) descriptive. The reinforcing gestures are for emphasis such as shaking a fist, or pounding the podium. The descriptive gesture indicates shape or size of an object.[40]

Bodily action is determined by the briefer's physiological and psychological makeup. Also the size and nature of the audience determine how much physical motion is made. Bodily actions should match the appropriateness of the situation. Also variability of actions used in moderation would tend to eliminate a monotonous briefing.[41]

Posture and dress

The briefer should display good habits of posture and dress. When standing in front of the audience, he should not lean on a table, lectern, or against the wall. Improper posture can non-verbally communicate to the audience that the briefer may be lazy or apathetic. Dress should conform to the situation.

Empathy

One of the most important ingredients that a briefer should show is empathy to his audience. Edgar Dale refers to it as "slipping into the other fellow's shoes."[42] The briefer should always think about how the audience will receive the briefing.

Commensalism is the state when two different species of animals share the same food or living quarters but are not parasitic upon each other. It is a mutual understanding. Empathy is similar to commensalism for it is the relationship where humans project themselves into other's personalities. It is a form of open-mindedness. Berlo defines empathy as the process through which we arrive at expectations, anticipations of the internal psychological states of man."[43] Empathy is also communicated non-verbally as well as verbally.

Summary

Within this chapter the writer has discussed the briefer as the source of a briefing. Four of the five requirements a briefer should have were considered separately. These were 1) educational background, 2) acquaintance of goals and purposes, 3) ability to organize and express his thoughts through planning, and 4) a knowledge of effective speaking techniques. The fifth requirement, having a working acquaintance of audio and visual systems, will be considered in depth in Chapter Five.

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CHAPTER IV

THE PROJECT MANAGER: THE RECEIVER OF THE BRIEFING

Introduction

In Chapter Three, the writer discussed the role of the briefer who would be briefing project managers. This chapter deals specifically with the project manager, one of the receivers of the briefing.

It must be realized that the project manager does not always act as a receiver in communication situations for he also acts as a source or sender. At times he may brief lower or middle management or his staff. However, in this case, the writer will refer to him as the receiver of a briefing given by somebody below him in the hierarchical structure of the project such as a staff member.

To better understand the project manager as a receiver of the briefing, a short profile would be in order. In Chapter Three the writer mentioned that the following variables usually are present within the audience during a briefing: age, sex, race, religion, level of education, intelligence, occupation and/or specialty, interests and abilities, emotional needs and desires, personal biases, and health. It was decided that some of these factors could have a great effect on how well the project manager receives the message. However, during an oral briefing, the receiver is not only under the influence of factors within himself but two other general factors as well, that is, the briefer and the environment.

The briefer's background, personal appearance, technique of delivery, and organization of content are several of the specific factors that could influence the way the project manager receives the message. Environmental factors also such as temperature, lighting, extraneous noise, interruptions, degree of comfort, and smoke could affect the receiver's perception of the message.

With many of the above factors operating, the project manager's listening ability could be affected positively if the variables match the briefer's or could be affected negatively if the variables conflicted. Conflict could be brought about by lack of credibility or empathy. Both are discussed later in the chapter.

But first, since this discussion deals more specifically with the project manager as the receiver of the briefing, it is necessary to consider who he is and the responsibilities he must fulfill in his position.

The Project Manager

In Chapter One, several types of project managers were described according to their level in the organizational hierarchy and the general function or functions they performed. It was implied that no matter at what level the project manager might be, he must be alert for interactions which affect other parts of the project outside his own area. This takes coordination.

Responsibilities

According to Booz, Allen, and Hamilton Management Consultants, in order for the project manager to be able to plan, organize, direct, and control he must be (1) adaptable, (2) able to balance technical solutions with time, cost and human factors, (3) an integrator and generalist, (4) able and willing to devote most of his time to planning and control, (5) intellectually sophisticated in management and (6) an effective leader.[1]

Since the project manager occupies a focal point of the total operation, he has the following commitments:

(1) Maintenance of clear and compatible budgets and costs

(2) Maintenance of accurate and realistic scheduling budgeting and forecasting

(3) Motivation of and communication with the staff on decisions and/or progress

(4) Management and conservation of any project funds entrusted to him

(5) Communication with financial backers of work progress

(6) Prediction of external events that could determine the eventual outcome of the project

(7) Development of plans for alternative actions in case a phase of the project fails, falls behind schedule, or is phased out[2]

With all the above responsibilities, the project manager must be kept informed of any problems that may occur within the organization. Some of these are listed by William Gamer, program cost controller at Lockheed Missles and Space Company:

> "Absence of teamwork
>
> Overlapping or duplication of authority
>
> Employees reporting to more than one superior
>
> Vague or ambiguous definition of departmental functions
>
> Invisible lines of authority actually being observed at variance with those shown on the organization chart
>
> Not enough Indians, but too many chiefs
>
> Bottlenecks
>
> Incompetent personnel in key positions
>
> Faulty distribution of administrative workload
>
> Organization structure not compatible with goals
>
> No responsible accountability system
>
> Insufficient delegation
>
> Responsibility for reliability of performance not defined
>
> Major functions not in keeping with changed circumstances." [3]

Besides problems and deviations, the project manager should also be informed of all progress so that schedules may be analyzed and re-adjusted, and performance may be assessed. When being briefed about any of the above matters, the project manager as a receiver must listen to and visually perceive the pertinent information so that he may take action to correct the problems or deviations.

Good listening will help him to alter, if needed, the project plan so that the schedule is maintained. A project manager who is a poor listener could misinterpret the information which could eventually lead to a wrong decision that could place the project behind schedule. Therefore, since listening is the primary function the project manager would perform at a briefing, the writer has devoted the remainder of this chapter to it. Although the visual channel is as important as the auditory channel, it will be considered and discussed in Chapter Five.

The Project Manager as a Listener at a Briefing

What is listening?

The ability to listen and the ability to hear are not the same. According to Eugene White, "hearing" is being conscious of having received the sound waves produced by the speaker; and "listening" is not only being aware of the stimuli but attaching appropriate meanings to them. "'Hearing' is a passive process, 'listening' an active one."[4] Ross defines listening as "a conscious, cognitive effort involving primarily the sense of hearing (reinforced by other senses) and leading to interpretation and understanding."[5]

The problem of listening

Lee Davenport says that face-to-face communication is best because it "provides a basis of getting to know the receiver and sense and respond to his reaction."[6] However, if a person cannot listen well, communication between the source and receiver is fruitless.

The problem of listening ability has existed in business and industry. This is indicated by Nichols who says both downward and upward communication in business are less efficient than they might be because of ineffective listening.[7] Applying this to higher management, Hoslett says that "in industry those with most authority often do not listen to others with less authority." This can have the unfortunate consequence of the superior acting without full understanding of an issue and the sentiments of his subordinates.[8] To correct this problem Drucker feels that the ability to listen must be developed by top and middle management if communication is to be effective.[9] Some people cannot listen because they have the wrong assumptions about listening.

False assumptions held about listening

Donald Bird lists the following false assumptions commonly held about listening:

(1) It is a passive function.

(2) It is easy.

(3) Hearing is listening.

(4) Listening is an automatic involuntary response.

(5) It can be commanded.

(6) The speaker is 100% responsible for the success of the communication.

(7) Listening skills develop naturally.

(8) Listening is only a matter of understanding the speaker's words.[10]

Any project manager who holds these assumptions during a briefing would have difficulty comprehending what was said. Besides holding false assumptions, other factors may differentiate a poor listener from a good listener.

Factors affecting listening

After reading several viewpoints of what makes a good or poor listener, this writer combined many and classified them according to three general problems: 1) those focused at the briefer, 2) those focused at the project manager, and 3) those focused at the environment.

Listening affected by the briefer

Factors relating to the briefer by what he says or how he says it could influence a project manager to be a poor listener at a briefing. That is the project manager may

(1) look for flaws in the speech patterns,[11]

(2) misunderstand the intended meaning of the words used or technical jargon, 12

(3) allow facts and details heard to obscure the briefer's central purpose, 13,14,15,16,18

(4) criticize the speaker (briefer) and won't allow him to finish the speech (briefing) without an interruption, 12,13

(5) consider the subject dull,[16]

(6) choose easy content to listen to or shy away from difficult subject matter, 13

(7) allow emotion laden words used by the briefer to interfere, 18,13

(8) feel the speaker lacks credibility,

(9) not empathize with the speaker (briefer.)[11,17]

Any one of the above factors could hinder the project manager's listening capability during the briefing.

In Chapter Three this writer discussed how the briefing should be delivered. Naturally if the briefer is a poor speaker, this would hinder the listening ability of the project manager or any other person in attendance at the briefing.

Edgar Dale feels that a listener must become involved if he is to listen well, but a speaker can influence good listening by using good practices. "We don't listen because we can't hear."[19] He also feels that some speakers cover too many ideas. "A poor speaker covers ten points. A good speaker uncovers one."

To be a good listener, the project manager must try to reverse the above patterns. He must be an active listener not what Dale refers to as a marginal listener who mishears and misquotes. "The responsible listener is responsive. He meets the speaker half-way and doesn't defy him to arouse his interest."[20]

Of the nine factors related to the briefer, two need elaboration. These are credibility of the briefer and empathy with the briefer.

Credibility.-- According to Webster's Third New International Dictionary, "credibility" is the "worthiness of belief" or "trustworthiness."

Aristotle once listed the dimensions of ethos and source credibility as good moral character and goodwill as source qualities which "induce us to believe a thing apart from any proof of it."[21]

Carl Hovland and Walter Weiss reported in Public Opinion Quarterly, 1951, a study in which they measured the amount of opinion change immediately after a communication. They found that the "trustworthy" sources were more effective in changing opinion than the "untrustworthy" sources. However, four weeks later there was a decrease in the extent of agreement with the "trustworthy" source and an increase in agreement with the "untrustworthy" source.[22] However, as applied to a speaker such as a briefer, trustworthiness is only one factor that establishes credibility. Since Hovland's study, other related research has been done.

Robert F. Weiss wanted to find how the credibility of a group source was varied by varying the degree of consensus among the source. After exposing 116 subjects to persuasive arguments advocated by 90 percent of the experts considered to be high consensus and 10 percent of the experts considered to be low consensus, he concluded that a high consensus source created a greater opinion formation than did the low consensus experts.[23]

Victor Bonchek described in a doctoral dissertation entitled "Commitment, Communicator Credibility, and Attitude Change" how he attempted to change female subjects' conception of femininity by varying the credibility of the communicator and the amount of effort the subjects had to exert in order to receive the communication.

He concluded that the high credible source caused more attitude change than the low credible source when effort was constant at a low level. He also found that when the effort was expended for the high source, there was more of a change of attitude than when no effort was expended for the low credible source.[24]

In another study, H. Winthrop used 100 college students who listened to a talk given by a male or female who was liked or disliked by the audience. He found that although sex of the speaker had no effect on the agreement or disagreement with the speaker, most subjects tended to agree with the liked speaker and disagreed with the disliked speaker.[25]

One of the most interesting studies this writer found was the one reported by Jack L. Whitehead, Jr. Using a 65 bipolar semantic differential scale, he measured how his subjects reacted to a speech on the topic of public interest in broadcasting. High and low credible sources were used.

A computerized factor analysis of Whitehead's data indicated the following factors as important to a person with high credibility:

1. Trustworthiness. The speaker was considered to be good, right, honest, just, moral, nice, virtuous, and friendly which suggested that the speaker was considered to be a good man.

2. Competence. The speaker was expected to be a professional, experienced, and authoritative. Whitehead mentioned that the speaker did not have to be an expert on the topic to be preceived as competent.

3. Dynamism. The speaker was considered to be agressive, energetic, and active.

4. Objectivity. The speaker was expected to be not only objective, but also open-minded and impartial.

Twelve other factors accounted for three percent of the remaining variance. The listeners expected the speaker to be older, reliable, inspiring, informed, qualified, believable, logical, proud, similar to the subjects, concerned, refined, safe, stable, unselfish, have expert knowledge, common sense, foresight, and a command of English.

The factors that rated high for the low credible source were the following:

1. Trustworthiness. For this factor the subjects thought the low credible source was disloyal to the listeners, contemptible, incorrect, unreliable, and worthless.

2. Dynamism. What was the fourth factor for the high credible source was second for the low credible source who was expected to be agressive, active, bold, decisive, and proud.

3. Competence. Although the speaker was expected to be experienced, he was also considered to be lacking a professional manner and foresight.

4. Objectivity. The speaker was considered to be closeminded and subjective.

The remaining factors had the following characteristics: The speaker was considered to be unpleasant, unstable, illogical, unbelievable, unauthoritative, unqualified, biased, inexpert, uninspiring, unintelligent, young, inconsistent, unconcerned, dissimilar to the listeners, and lacked expert knowledge. However, he was considered to be friendly, informed, stimulating, and persuasive.[26]

This study clearly illustrates that besides trustworthiness, a factor relied upon heavily in the definition and early studies of credibility, other factors such as competence, dynamism, and objectivity are important determinants in source credibility. These factors could determine how much reliance the project manager would place in the information being delivered. That is, a project manager who considers a briefer to be incompetent, unqualified, and illogical might consider the information being delivered to be inaccurate.

Empathy.-- The other element that is important between the interaction of the briefer and project manager is empathy. Speroff defines empathy as "the ability to put yourself in the other person's position, establish rapport, and anticipate his feelings, reactions and behaviors."[27]

A person having little empathy is given the following description by Cottrell and Dymond:

> "Those who are low in empathetic qualities are rigid, introverted, emotionally inhibited, self-centered, demanding, lone wolves, non-insightful, less well-integrated, have poorly controlled emotions, have unsatisfactory family relations in childhood, experience difficulty in interpersonal relations, mistrust others."(28)

It may be inferred that this type of person would tend to be a poor listener. He could be considered an egocentric person. Also the many qualities he would possess would tend to cause him to place less credibility in the speaker. If little empathy existed between the briefer and project manager, the briefing would have little meaning.

A highly empathetic person would have the following characteristics:

> "emotionally expressive, outgoing, optimistic, warm, flexible, insightful, interested in others, more at peace with themselves, less anxious and depressed, socially tactful, have

> affectional relationships, especially satisfactory family relations in childhood." (29)

In contrast to the low empathetic person, it may be inferred that the high empathetic person would be more sociocentric and would have a tendency to place more credibility in the speaker.

According to Kenneth Gompertz "the process of empathy seems to be sine qua non for effective communication, especially oral communication."[30]

Empathy is necessary in order that an understanding may be reached between the briefer and the project manager. Although the ability to empathize varies with individuals, it is a skill that must be consciously developed.

The preceding discussion has dealt with how listening may be affected by the relationship between the source--the briefer--and the receiver--the project manager. Credibility of and empathy with the speaker were considered to be two important factors related to how well project management will listen to a briefing.

The writer will next consider how listening may be affected by the receiver himself.

Listening affected by the project manager

Several researchers have studied the relationship of the receiver's listening ability to his intelligence, scholastic aptitude, and reading ability.

It has been repeatedly found that intelligence is highly correlated to listening ability. Keller refers to studies by Brown, Carlsen, Stromer, McClendon, and Haberland as proof.[31]

Brown and Carlsen found a moderate correlation between listening comprehension and scholastic ability. However, Blewett saw little relationship and concluded that scholastic aptitude could not be used to predict listening performance.[32]

Brown and Carlsen also did a study comparing listening comprehension to reading comprehension and found only a small correlation. Blewett, using college level subjects, concluded that reading and listening employed different factors.[33]

The distinction between a reader and a listener is shown by Gilman, Aly, and White. A reader may return immediately to a passage for review or clarification. However, a listener cannot return immediately back to a speech. When a reader comes upon an obscure word, he may look it up in a dictionary; but a listener must wait or forget it. A reader may look forward and gain perspective, but a listener can only forecast what the speaker may provide.[34]

However, reading and listening are alike in that "you learn what the other fellow said and ponder what he meant."[35]

Several authors have listed the following problems within the receiver that can affect his listening:

(1) His mind wanders to other matters, for example,

personal problems.[36,37]

(2) Built-in emotional factors, such as attitudes, cause him to get over or under stimulated.[14,16,13,36]

(3) He fakes attention.[8,16]

(4) He rushes to conclusions.[37]

(5) He tries to take too many notes.[16,13]

Correction of these problems would be up to the receiver. Perhaps the best remedy would be for him to practice listening.

Many of the problems arise from the needs of the listener. Dietrich and Brooks list the following five characteristics which describe the needs of the listener:

(1) He wants to protect himself.

(2) He wants new and different experiences.

(3) He wants to get ahead in the world.

(4) He wants to be respected for himself.

(5) He wants to learn, provided knowledge will help him. (38)

It may be assumed that the project manager also has these needs.

In Chapter Two, it was stated that the variables determining the communicating capabilities of the source were his communication skills, attitudes, knowledge level, and position within the social-cultural system. Likewise, the communicating capabilities of the receiver are determined by his listening skills and visual perception, attitudes, knowledge level, and the social-cultural system.

The writer feels that it is not necessary to elaborate upon these since they have been discussed. However, it should be noted that attitudes, knowledge, and position within the social-cultural system can determine how well a project manager would perceive the oral and visual message of the briefing.

Listening affected by the environment

A third influence that may determine how well the project manager will listen to the message of the briefer is the environment. A poor listener will let environmental factors disrupt his reception of the oral and/or visual message.

Environmental disturbances could be sound, light, a smell such as smoke, or an uncomfortable feeling such as being too hot or cold or feeling a draft.

As discussed in Chapter Three, the briefer should attempt to eliminate any of these disturbances by selecting a room that is controlled for lighting, ventilation, and acoustics. The room should be comfortable to his audience.

However, the briefer cannot always secure an ideal room. The listener must then compensate for the deficiency by mentally "shutting out" any disturbing influence within the environment. At first this may be difficult, but by practicing listening in all kinds of situations, he can improve his ability to listen no matter what the conditions are.

Summary of the factors affecting listening

Up to this point it has been shown how factors within the briefer, within the project manager, and within the environment can determine how well the project manager will listen to a briefing.

All of these may be summarized by the illustration on the next page which shows how the amount of information is slowly reduced from the briefer to the project manager over time because of "filters" -- represented by the vertical lines.

This writer defines a "filter" as a factor of resistance within the speaker, receiver, or environment that can reduce or transform the information input or output. Other authors may refer to these as "barriers" or "noise."

Beginning on the left we have the intended message of the briefer. However, as he speaks the message, i.e., the actual spoken message, it has undergone a slight reduction in information. The briefer's filters may be his use of words, his gestures, his speech patterns, etc. Between the briefer and project manager are "environmental filters" that can further reduce the amount of information being received by the project manager. Environmental filters would be represented by extraneous sounds, lights, odors, etc.

Therefore, when the message reaches the project manager, he hears it in a reduced form from the actual spoken message. But by the time his filters such as prejudice, daydreaming, discomfort, etc. have worked on the

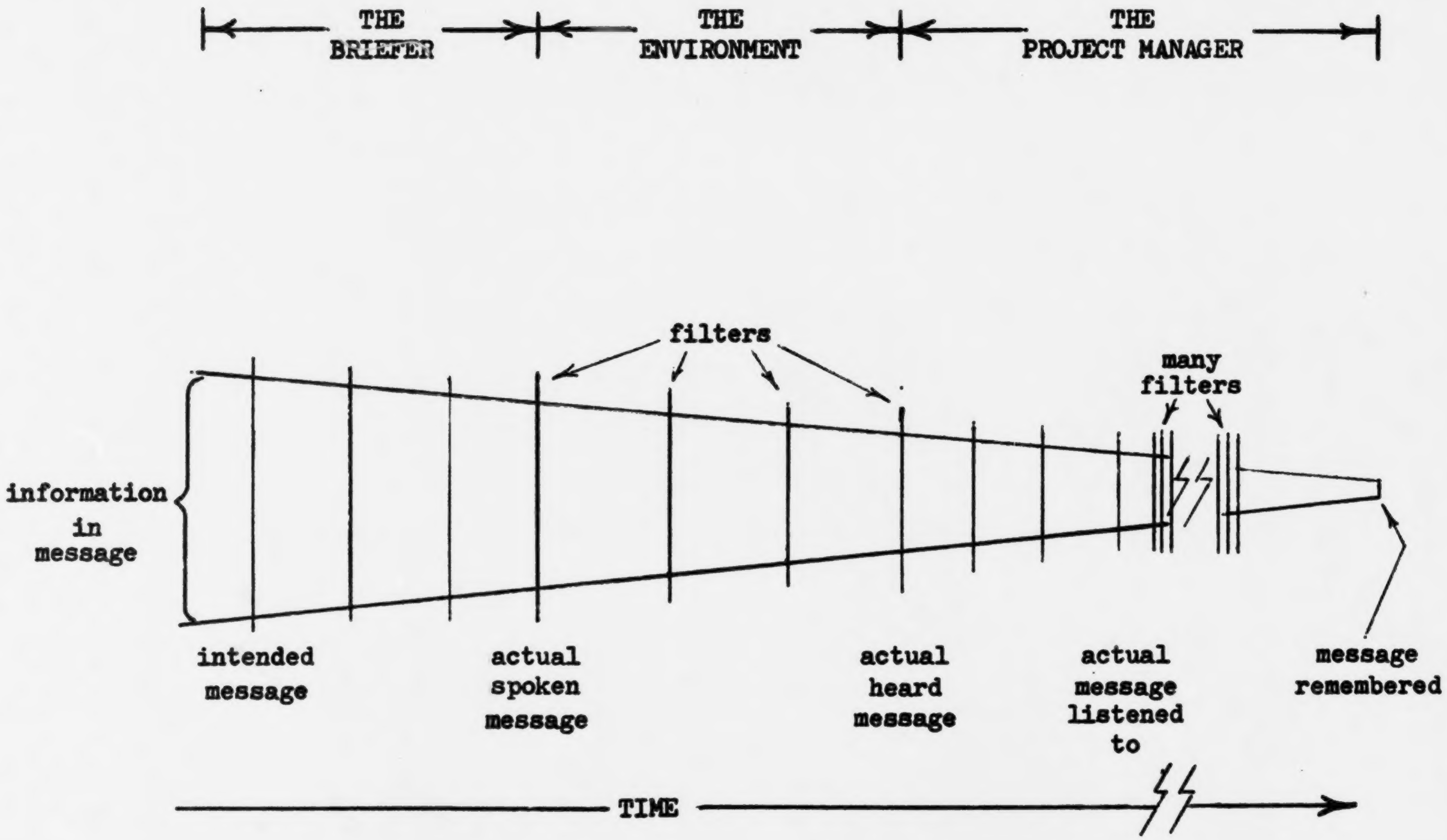
THE BRIEFER
THE ENVIRONMENT
THE PROJECT MANAGER
filters
many filters
information in message
intended message
actual spoken message
actual heard message
actual message listened to
message remembered
TIME

Fig. 4.1 -- The reduction of information from the briefer to the project manager.

message, he perceives or listens to only a reduced portion of the message he heard. All of this can occur in an extremely short interval of time. Over a long period of time, the message is further reduced by filters until a very small segment is remembered. Therefore, the writer believes that the project manager's decisions would depend upon the extent of filter interference. Elimination of some of the filters increases the information output and input so more of the message is received, remembered, and more accurate decisions made.

However, this takes cooperation and empathy between the briefer and the project manager. Now that the problems are known, how can a project manager listen to a briefing?

The process of listening

There are probably many ways a person could listen to a briefing. Theories have been proposed concerning how a person listens. One theory was proposed by Seth A. Fessenden[39] who felt that a receiver of an oral communication has seven levels of listening. The writer has applied the listening levels to a project manager.

1. The level of isolation.-- Here there is no analysis, but only a specific recognition of facts. The project manager would select facts pertinent to his area of interest or that might correct a problem that exists.

2. The level of identification.-- Meaning is given to the facts selected at the level of isolation. The project manager would begin to decode the information input

and categorize the information input.

3. The level of integration.-- Previous knowledge is recalled to integrate the new information with the old. The project manager draws present and past information together in order that he may compare at the next level. If there is no experience in the past relating to the new experience, integration could not occur.

4. The level of inspection.-- The new and old information is compared for similarities and differences. Here the project manager begins to evaluate the information and may decide how to use it.

5. The level of interpretation.-- At this point the project manager begins thinking of implications the integrated information may carry. He also begins to appraise the content by objecting to or approving what is being said.

6. The level of interpolation.-- What the briefer has been unable to provide is supplemented by the project manager. He must "add to, insert, guess at the meanings behind and between the sound waves" that impinge on his hearing organs.[40] The correctness of the interpolation is determined by the accuracy of his predictions.

7. The level of introspection.-- Here the project manager notes what affect the content has upon him. It is a level of inner examination and self-reflexiveness.[41]

If a project manager can listen to the briefer's message properly, he will possess the following advantages as described by Harold Zelko:

1. He can make better decisions based on information, opinions, and experiences of his subordinates and superiors.

2. Good listening stimulates him to be a better speaker.

3. After a briefing he will possess more information than the indifferent listener.

4. He will be able to speak and participate better in conferences and lectures.[42]

Summary

The first part of the chapter described the project manager and listed the responsibilities and problems with which he may be faced. Although the briefing may save the project manager's time required for reading many written reports, it will be ineffective if the project manager is a poor listener.

"Filters" within the briefer, the environment, and the project manager himself were discussed as factors that could affect the project manager's listening ability.

Using Fessenden's seven level theory of listening, the writer described one way how the project manager could listen to a briefing.

Chapters Three and Four have primarily dealt with oral communication within a briefing. Visual communication is also important, i.e., the use of visual materials to supplement the briefing. Therefore, the next chapter, the channel, will emphasize visual communication and will incorporate material on how the project manager may perceive it.

Footnotes

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CHAPTER V

THE VISUAL CHANNEL OF THE BRIEFING

Introduction

In Chapters Three and Four, the writer discussed the briefer as the source and the project manager as a specific receiver of the briefing to project management. Emphasis was placed on speech and listening or more generally the oral phase of the communication. Therefore, in a sense, one aspect of the channel was discussed -- the aural modality or channel.

Frequently the briefer will use visual materials such as 35-mm slides, overhead transparencies, etc., to supplement the briefing. Therefore, Chapter Five emphasizes the visual modality of the briefing. But first the definition of "channel" should be reviewed.

What is a Channel?

In Chapter Two, "The Briefing: A Process of Communication," it was decided that the "channel" was a "link between the source and the receiver." Berlo's three definitions of channel were briefly discussed. He defines channel 1) as the senses, 2) as a pattern of sound and/or light waves and 3) as a means of dissemination.

The channel as a sense means the message can be heard, seen, smelled, touched, or tasted. This writer will only emphasize messages that are seen and heard.

As a pattern of energy waves in the form of light and sound, the channel may be perceived in many ways. Variations may be due to physical factors relating to waves such as frequency, intensity, wave length, and duration.

A means of dissemination may be an overhead projector, a flipchart, or a chalkboard.

During a briefing the auditory and visual channels are the most important to the receiver for receiving the message. Therefore, it would be helpful in knowing the distinct differences between the two channels.

Differences Between Auditory and Visual Channels

Ernest McCormick summarizes R.H. Henneman's article "Vision and Audition as Sensory Channels for Communication" that appeared in a 1952 issue of The Quarterly Journal of Speech. Following are the differences he found:

General Nature

Auditory: Temporal. Information is extended through time.

Visual: Spatial. It has a position or location in space -- except TV or motion pictures.

Time

Auditory: Sequential. Information arrives in sequence.

Visual: Sequential and/or simultaneous.

Referability

Auditory: Poor. It cannot be kept continuously before the observer, although it can be repeated often.

Visual: Good. Information can be stored in the display. TV and motion pictures have poor referability in normal communication situations.

Coding

Auditory: Fewer dimensions in information coding.

Visual: Numerous dimensions in information coding.

Flexibility

Auditory: Greater, such as off-the-cuff variations in connotations, nuances, and inflections.

Visual: Restricted, because of advance coding.

Rate of Transmission

Auditory: Limited to speaking rate.

Visual: Much faster.

Versatility

Auditory: Less.

Visual: Greater.

Attention Required

Auditory: More.

Visual: Less.

Resistance to Fatigue

Auditory: More.

Visual: Less. (1)

Actually the ear's capacity for information input is strikingly less than the eye's. (The maximum capacity of the ear is 8,000 bits of information per second whereas the eye's maximum capacity is 43 X 10^6 bits of information per second.)[2]

Although there are differences between the two channels, there is no reason to assume that one receptor is better than the other.

Actually, the message, the environment, the method of transmission, and the ability of the receiver to perceive the message all play an important role in how effective the channel is.

Hower J. Hsia cites numerous studies on channel effectiveness. One conclusion he makes is that "there are many factors influencing the relative effectiveness of A (audio) and V (visual), and that neither is inherently superior to the other."[3]

But when both the auditory and visual channels are used together, the "AV channel inherits the advantages and disadvantages of both A and V channels, and presumably has advantages over the A and V only if, for example, its A and V stimuli are closely identical," which Hsia calls "between channel redundancy" or BCR.

Applied to the briefing, it could be stated that if what the briefer says is identical or highly similar to what is seen on the screen, charts, or chalkboard by the receivers, then the auditory and visual channels have reinforced each other and have eliminated possible interference effects. In fact, what the briefer says (auditory cues) can reduce the amount of time it takes the receiver to visually search for the information from the visual materials used.

However, if the rate of transmission of the audio and visual channels approaches the limits of the receiver's ability to receive, the receiver may then select the preferred channel. Therefore, to get optimum use of the audio and visual channels together, the briefer should speak at a reasonable rate and use the correct visuals as he speaks.

Hsia states "so long as neither A nor V stimuli reach the limit of the CNS (Central nervous system), an AV presentation is generally a more efficient method of presenting communication materials."[4]

Use of Visuals

Erwin Bettinghaus also states that "research tends to show that when a speech is supplemented by 'appropriate visuals,' the receivers of the communication tend to learn the material better than if the presentation uses only the channel of hearing."[5]

This writer enclosed the words "appropriate visuals" in the above quotation to emphasize that not all speeches nor all briefings need visual materials. Sometimes a short oral explanation may be adequate to deliver the needed information to project management.

Stephen Price believes that visuals should be used in the following situations: 1) when there is a change in the project proposal, 2) when group opinion differs, 3) when statistics are used, 4) when financial matters are discussed,

5) when engineering details are given, 6) when products or services are sold, 7) when the speaker is unfamiliar with the listeners, 8) when parts are related to the whole, and 9) when structure or organization is shown.[6]

Therefore, the first point the briefer should determine is whether there is a need for visual supplementation of the oral content. However, the decision to use visuals can be advantageous to the briefer and his audience.

How visuals help the briefer

Visual materials help the speaker by

- stimulating the presentation of ideas
- improving creative thinking
- increasing enthusiasm
- aiding organization of materials
- providing an outline guide during the presentation
- strengthening the impact of the message
- permitting spontaneous action and movement during the delivery
- increasing self-confidence
- directing attention to the speaker
- simplifying complex material
- providing the speaker with a stronger bridge than words alone to carry his thoughts to the audience.[7,8,9,10]

How visuals help the audience

Likewise visual materials help the audience by presenting a concrete basis for conceptual thinking

reducing misconceptions and misunderstandings

creating colorful and interesting values

emphasizing and fortifying importance

stimulating imaginative and creative thinking

increasing participation

creating continuity of thought

providing variety

helping to develop meaningful concepts and associations

reducing confusing and misleading ideas

aiding memory

maintaining attention[7,8,11,12,13]

If the briefer has decided to use visual materials, he should decide what visual materials will best present the information he is explaining. Several factors should be considered before selection of visual equipment and materials.

Factors determining the selection of visuals

The following list of factors should be determined by the briefer before any selection of equipment or production of materials is initiated.

Size of Audience: Will there be less than ten or more than ten in attendance?

Composition of Audience: For example, will this briefing be for project management, clerical employees, or teachers?

Place of Briefing: Will the briefing be held in an office, conference room, classroom, or auditorium? What facilities are available?

Frequency of Briefing: Will the same briefing be presented to different audiences or used only once?

Time to Produce Materials: How much time is available to produce the materials?

Cost of Materials: How much money is available to have the materials produced? How can the greatest effectiveness be achieved at the least cost?

Best Method of Presentation: Would the chalkboard, overhead projector, opaque projector, or flipchart be the best method of presentation?

Availability of Equipment: Would an overhead projector be available at the time of the briefing?

The factors listed in a variety of combinations would determine the selection of the appropriate visual means of supplementing the briefing. Therefore the writer has chosen the following seven briefing situations in which the briefer and project manager could be involved, and has selected the forms of media that would be adequate for the situation:

Small informal briefing given once
Small informal briefings given more than once
Small formal briefings given once or more

Medium-sized informal briefings given once

Medium-sized formal briefings held once or more

Large formal or informal briefing

Briefing outside the organization

Each category is chosen according to size and the people being briefed. In discussing the categories "formal" means briefings given to people above the briefer in the organizational hierarchy such as project managers, a board of trustees, etc. "Informal" briefings would be given to people below or at the level of the briefer such as clerical staff and other employees. "Small" means from two to fifteen persons, "medium-sized" means from sixteen to forty persons, and "large" means more than forty persons.

Selection of visual media for various briefing situations

Small informal briefing given once

The small informal briefing given once may be held in an office or classroom. There is no need to spend a great deal of money for visual materials, yet the briefer should not risk accuracy, brevity, and clarity for a less expensive presentation.

Visual materials suitable for this type of situation are chalkboard, easel with flipcharts, or overhead projector. All have the following advantages: 1) they can be used in a fully lighted room, 2) the briefer can control the placement of the visual content, 3) the briefer can maintain good eye-contact and 4) all possess "spontaneity" meaning something may be drawn or added with chalk, crayon, magic marker, or grease pencil during the briefing.

Each of the above visual materials also has its disadvantages and the briefer must compensate for them. In the case of the chalkboard, the briefer loses eye-contact while using it. Furthermore, the limited space rigidly limits him to the amount of information he can put on the noard each time. Therefore, the briefer should have note cards with simple planned visuals than can be rapidly placed on the chalkboard.

The easel with flipcharts has more flexibility than the chalkboard. Eye-contact with the audience is better maintained because many charts may be prepared before the briefing and placed in proper sequence. Since the briefing would only be presented once, the charts and graphs would probably be drawn on large sheets of newsprint to lower the cost. It should be noted that when the briefer flips the large sheets of paper, the noise may distract from his speech. The briefer should generally pause while flipping the sheets.

Overhead projectors are also noisy while being used because of a fan that cools the bulb. The briefer can compensate for this by increasing the intensity of his voice. The briefer should also be careful not to leave the projector on while nothing is being projected. The blank lighted screen is distracting.

3

During the briefing the briefer may want to make a visual transparency with clear acetate (x-ray) film and a grease pencil. Usually this is done on the lighted stage of the overhead projector. When this is done, the briefer should hold the film so that it doesn't wiggle, since motion on the screen can be very disturbing to an audience member.

Since an overhead projector is not always available at the time of the briefing, the briefer should make prior arrangements for its use.

Small informal briefings given more than once

Sometimes an informal briefing must be given several times to small groups of people within different phases of the project. For example, project management may want the total clerical staff informed about the use and cost of materials. However, instead of briefing the total clerical staff all at once, management may want them briefed separately. This would require the use of the same visual materials several times. The briefer needs materials that are durable and portable, yet inexpensive. Flipcharts and overhead transparencies are best for this situation.

By using the flipcharts and overhead transparencies instead of the chalkboard, it is not necessary for the briefer to rewrite the material each time he presents it.

When using flipcharts and easel, the charts should be drawn on illustration board instead of newsprint.

This will insure more portability and durability.

Machine-prepared transparencies using Thermofax or diazo processes last longer than those composed of clear acetate and magic marker or grease pencil.

Small formal briefings given once or more

A small formal briefing could be composed of several project managers or other professional people. Usually it would take place in a prearranged conference room.

Preparing instantaneous visuals during the briefing would be inappropriate. The project managers, having limited time, would want a briefing well-prepared in advance. Therefore, the briefer should use materials already prepared such as those discussed in the small informal briefing given more than once.

If charts and graphs are drawn on the chalkboard, they should be covered until used. They should be erased when the briefer finishes talking about it.

If easel and charts are used, the graphics should be drawn on illustration board and arranged in the proper sequence. Likewise, overhead transparencies should be prepared and mounted in advance.

Although the cost of preparing these visual materials is higher, the briefer has visuals that have gained in durability, portability, and permanency.

Medium-sized informal briefing given once

A medium-sized briefing may range from 16 to 40 persons and would be held in a large conference room or classroom.

If the briefing is given only once, the chalkboard, easel, flipcharts, and overhead projector could be used as was discussed in the small informal briefing.

Another piece of useful equipment is the opaque projector. With it, opaque materials such as a table in a journal, a small glossy photograph, or a graph drawn on a sheet of paper can be projected. A sequence of charts also can be drawn on a long sheet of paper and passed through the projector.

Its disadvantages must be compensated for by the briefer. First he should have an assistant operate the projector since it must be several feet away from the speaker. This will permit the briefer to maintain good eye-contact. Like the overhead projector, the opaque projector has a noisy fan. The briefer, when using the machine, must increase the intensity of his voice. A third disadvantage is that the room must be darkened. According to one source "darkness tends to produce audience passivity."[14] The briefer should, therefore, group his visuals in a manner so that the lights are not being continually switched on and off.

A medium informal briefing given more than once would require portable and durable materials. These materials could be classified with the medium formal briefing held once or more than once.

Medium-sized formal briefings held once or more

The medium-sized formal briefing requires a large conference room or classroom. Since a formal briefing may be composed of project managers and other professionals, the same principles of presentation should apply as in the small formal briefing. However, size of the audience and room has increased making it more necessary to use some method of projection. However, easel and flipcharts can still be easily seen, but the print must be larger. The overhead projector is excellent for this type of situation because the briefer can still maintain good eye-contact. If a remote control or an assistant is available, the briefer may also use a 35-mm slide projector, a filmstrip projector, or a motion picture projector. Although the room lights must be dimmed, the 35-mm projector, preferably a carrousel model, can be used to project two-by-two slides. The use of slides will make the briefing seem to flow more smoothly.

The 35-mm filmstrip is similar to the two-by-two slides. Flexibility with the filmstrip isn't as great because the individual frames are in a fixed sequence.

Occasionally a briefer may want to show a short motion picture film clip such as a process in operation.

He would use an 8-mm, Super-8, or 16-mm projector. The film could be silent or sound. If the projector is not in a soundproof room, the briefer should increase his voice intensity if he narrates the film.

Large formal or informal briefing

When a briefing involves more than 40 people, it will be held in a large room or auditorium. The larger the group, the greater the need for projection equipment. Sound equipment such as microphones, amplifiers, and speakers should also be made available.

Briefing outside the organization

A project manager may be requested to brief other projects groups or organizations involved in similar work. Or if the project is being supported by the government, public and/or private foundations, it would be good public relations for the project manager to have an audiovisual briefing kit prepared and sent through the mail to the various supporting agencies. Thus all concerned would be kept informed of project progress.

Kits may be composed of 35-mm slides and audio tape, a sound motion picture, a filmstrip and audio tape or record, or a videotape.

In the preceding pages, the writer has discussed how certain audiovisual equipment and materials would be appropriate for particular situations. It may be concluded that the larger the briefing, the greater will be the chance of using projection equipment which is more expensive and less available than non-projection equipment such as the chalkboard and flipcharts.

All briefings that are presented more than once or are formal should have visual materials that are prepared in advance, are durable, and are portable.

After the appropriate audiovisual method of presentation is selected, the briefer should be concerned with the design of the visual materials to be used.

Design of visual materials

There are many ways to design a visual. It is not this writer's purpose to discuss the number of methods available to produce visuals, because there are many books written on the subject. However, a briefer should know that a poorly designed visual creates what some communicators refer to as "channel noise" or "interference."

When the audience at a briefing sees a visual, i.e., a slide, chart, graph, etc., that is too complex and muddled with information, they either ignore it or tend to not listen to the briefer because they're trying to decipher what the visual means. The briefer should have an understanding or general knowledge of good visual design. A project manager likewise should have a general understanding of visual design so that he can use it in written or oral reports he may prepare.

Symbol types in visual design

A visual may have one or a combination of three symbols. These are 1) pictorial symbols, 2) language symbols, and 3) graphic symbols.

The pictorial symbol as described by McLinker is a combination of lines, shapes, colors, and textures. Being more realistic than the two other types of symbols, its appearance is similar to the object it represents.

Language symbols can be numerals or letters that form a printed language. Although they lack more visual appeal than the pictorial symbols, they are excellent for presenting abstract or general information.

Graphic symbols are a combination of pictorial and language symbols. They are useful in presenting large amounts of information quickly and for showing relationships of parts to the whole.[15]

All the symbols can be formed by using a combination of design elements. These are 1) space, 2) line, 3) shape, 4) size, and 5) color.

Symbol design

Space.-- Space determines the relationship between visual symbols. Proximity suggests association, whereas distance may suggest dissociation. If an object is surrounded with white space, attention is brought towards the subject. Considerable blank space brings importance, little blank space subtracts from importance. Therefore, if something must be stressed in a visual it should have adequate space surrounding it.

Spacing of letters, words, and between lines of words is important for legibility. Space between words should be greater than the space between the letters of words. The spacing between letters of a word are determined by "optical spacing" whereby the producer of the visual estimates the amount of space needed. Space between the lines has been suggested to be from one-half to two times the letter height.

Coltharp suggests double space between lines for 35-mm slides,[16] whereas NASA suggests from one-half to one and one-half times the letter height.[17] For an overhead transparency, Richard Smith suggests a spacing from one to one and one-half times the height of the letters.[18]

Lines.-- "Lines communicate most of the information transmitted by the pictorial portion of a visual."[19]

The following are functions of lines:

1. They form shapes by enclosing areas.

2. Lines parallel to the visual axis suggest stability and structure.

3. Diagonal lines suggest action.

4. The intersection of lines focuses attention.

5. Lines suggest movement. Straight lines suggest rapid movement, curved lines gradual movement.

6. Similar lines strengthen, repeated lines establish implied lines, and contrasting lines add emphasis.[20]

Most visual symbols used in a briefing consist of words, tables, diagrams, graphs, and charts. The lines forming these symbols should meet certain standards in order that the whole audience can see them.

The 3-M Company suggests for overhead transparencies that line thickness not exceed one-eighth of an inch or ten-point.[21] For flipcharts, NASA suggests no less than one-thirty second of an inch or three-point.[22] Magic markers range from six-point (a little over one-sixteenth of an inch) to less. Chalk can produce varying line thicknesses but the normal range is from three-thirty seconds of an inch to one-eighth of an inch or six-point to twelve-point.

Shape.-- Lines create shapes. Some shapes attract attention, others do not. "In general, asymmetrical, irregular shapes that also have the feature of simplicity are more eye-catching than duller, symmetrical and complicated ones."[23]

Although MacLinker feels that exaggerated or distorted shapes can be used to add emphasis, denote importance, and add appeal, they shouldn't be used if accuracy, brevity, and clarity are being sacrificed. For example lettering used in visuals during a briefing should be simple. Brown, Lewis, and Harcleroad suggest that the bold Gothic style be used for the chalkboard.[24] NASA suggests that for legibility "sans serif medium type faces are recommended" for overhead transparencies or 35-mm slides. They also feel serif medium weight type faces are acceptable and will give satisfactory results.[25]

Size.-- "The size of a visual element is always relative to the size of the other elements."[26] A visual element that is large in relation to its surroundings, or any object with white space around it, will attract attention.

Size of lettering and other visual elements will determine how well the participants of the briefing can read the information.

The following are recommended sizes for lettering:

1. When using the chalkboard, Brown, Lewis, and Harcleroad feel that for a "viewing distance from the chalkboard of thirty-two feet, lettering should be at least two and one-half inches high."[27]
2. When using flipcharts, NASA's standards are three to five inches for cover sheets, one and one-half to two inches for titles, one to one and one-half for subtitles and paragraph headings, and three-fourths to one inch for copy and labels.[28] Edward Hodnett feels that for groups greater than fifty, the letters should not be less than one inch in height.[29]

3. When using two-by-two 35-mm slides, Coltharp suggests that letters, figures, or symbols should be no less than one twenty-fifth of the total height of the material to be photographed.
4. When using overhead transparencies, the 3-M Company suggests that the title's minimum size should be twenty-four point type and information other than the title should be not less than fourteen-point.[30] Richard E. Smith feels that letters should not be less than one-fourth of an inch in height on the finished transparency.[31]

Color.-- Color is useful in design of visuals for the following reasons:

It attracts attention.

It adds eye appeal and visibility through contrast.

It separates elements, can emphasize, or show relationships.

It can be used to identify visual elements.

It can transmit psychological meanings to the receiver, for example, red may mean danger, green means safety or spring, etc.[32]

The number of colors used should be minimal. Some authors feel that using more than three colors is confusing.

Following are suggestions of how color should be used with several media of instruction that could be used during a briefing:

1. In using the chalkboard, Loney feels that colored chalk should be used for variety and stress, but sparingly.[33] The Army uses color for emphasis, not beauty.[34]
2. For flipcharts NASA specifies that color should be used to identify, clarify, or draw attention to specific items or areas, but not for decoration.[35]
3. For overhead transparencies NASA uses color for functional purposes only.[36] Richard Smith states that color can be used for differentiation.[37]
4. For 35-mm slides or filmstrips NASA uses color for functional purposes.

Edgar Dale advises that regardless of what medium is chosen, one should be careful to use color functionally, for example, to add "clarity that would otherwise be lacking."[38]

Visual arrangement for clarity

Clarity is achieved in a visual by arranging the visual symbols and elements in a way that is meaningful to the receiver or viewer. Besides clarity, a good visual will have balance, unity, movement, and simplicity.

Balance.-- Good balance is the positioning of the visual symbols so that their interrelationships are pleasing to the eye. Balance means stability. An unstable visual has symbols that do not relate well to each other. This can cause the viewer to become confused about the message.

Unity.-- The control of blank space can create good unity. If the visual symbols are broken up with too much space, disunity occurs which can cause "confusion, lack of interest, and limited learning" in the viewer.[39]

Movement.-- The direction the viewer's eye should follow is determined by the real or implied lines in the visual. Implied lines are created by repetition of shapes, contrasting surfaces, or a direction a figure is looking. Normally eye movements are from left to right and top to bottom.

Herman F. Brandt reported eye movement tendencies in viewing a motion picture. Following are some of his conclusions:

1. The initial point of fixation is at a point to the left and above the center of a given field.
2. The eye tends to move in a clockwise direction in the first exploratory trip over the layout.
3. Two types of eye movement commonly employed are the initial survey and the detailed examination.
4. Pictorial copy has greater attention value than copy in print and provides a greater freedom for the eye to

move spontaneously.

5. The center is preferred to the edges of an observed field.

If the receivers at a briefing must make radical eye movements to read the visuals, their interest and comprehension may be decreased.

I. A. Taylor suggests ways the visual can be designed to maintain good eye movement.

1. Major elements (pictorial symbols) should be separated from minor elements (labels).

2. Minor elements should be arranged so that the eye will move away or toward the major element.

3. Major and minor elements should be interdependent.(41)

Keeping some of these points in mind, the briefer can tell if his visuals have a design that will enable the viewer to have good eye movement.

Simplicity.-- Most authors agree that one idea or concept per visual is sufficient.

Taylor lists five factors in considering the amount of information needed in a presentation. 1) message complexity, 2) background and knowledge of the audience, 3) desired level of understanding, 4) availability of material, and 5) time spent in viewing.[42]

Concerning the last point, Hodnett emphasizes that if a chart or slide cannot be comprehended within thirty seconds, it should not be used.[43] The Highway Research Board agree with Hodnett and also specify that tables should contain no more than ten to fifteen words and graphs should have no more than two curves or four bars.[44]

The number of lines of print will determine how simple the visual appears. For flipchart or chalkboard, Hodnett feels twelve lines of print is the maximum, seven is more legible and three are better for focusing and drawing attention.[45] For an overhead transparency the 3-M Company suggests no more than 9 lines per visual.[46] For 35-mm slides Coltharp suggests that the sentences be limited to key words and phrases.[47]

The briefer should keep in mind a statement made by Thoreau in Walden : "Our life is frittered away by detail . . . Simplify, simplify."[48]

To this point the writer has discussed visual media, symbols, elements, and design that could be utilized within a briefing. Many briefings, especially to project management, would use graphics to visually communicate the information being orally presented by the briefer. Therefore, the briefer should be aware of the types of graphic symbols that are available.

Use of graphics

Graphics, according to Francis J. McHugh, are "somewhat less abstract than words, numbers, and formulae; more abstract than pictorial displays."[49] Graphics enable us to give form and structure to ideas and numbers. They function

1) to simplify facts, figures, and ideas and 2) to help make the logic of the conclusion reached seem clear and inevitable.[50]

Booz, Allen, and Hamilton Management Consultants feel graphics are useful to project management for the following reasons:

> "Large amounts of complex information can be presented in pictorial, easily understood form.
>
> Changes in rates of progress can be presented simultaneously for integrated analysis.
>
> Original plans, past performance, and future predictions are easily shown and compared.
>
> Open display, if possible, maintains an awareness of all people concerned of the project and its progress." 51

A briefer may use three forms of graphics: 1) charts, 2) graphs, and 3) tables.

Charts

Edgar Dale defines a chart as "a visual for 'summarizing' or 'comparing' or 'contrasting' or 'performing' other helpful services in explaining subject matter."[52]

Types of charts useful to project management are what Brown, Lewis, and Harcleroad classify as "organizational charts," "time charts," and "sequence charts."

Organizational charts.-- The flow chart or network is one type of organization chart used. It shows the interrelationships between events, which are project accomplishments at an instant of time, and activities, which are the processes or tasks involved in achieving the events. The events are small circles interconnected with arrows representing the activities. The network is sometimes used to show progress, to calculate work schedules, and to communicate complex planning sequences to various work groups.[53] (See network on next page.)

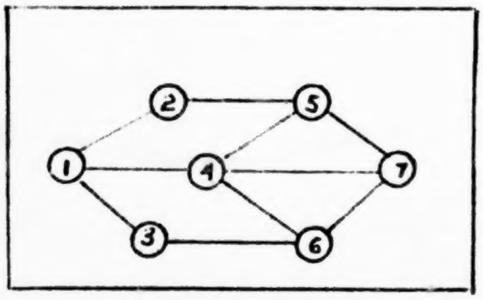
Another organization chart used by project management is the tabular chart which shows in columns the breakdown of objectives or work tasks. This is called a work breakdown structure.

An alternative way of showing the work breakdown structure is in the form of a "rank chart" which consists of rectangles at various levels interconnected by lines. It also may be used to show the hierarchial structure of an organization. (See rank chart next page.)

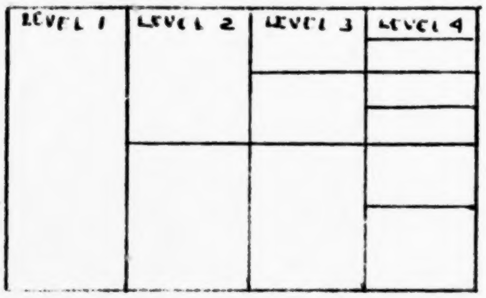
Time charts.-- A "time chart" uses a chronological scale. One such chart that project management may use is a Gantt Chart. It is composed of a series of bars plotted against a calendar scale. Each bar represents the beginning, duration, and end of some segment of a total job to be accomplished. Altogether the bars make up a schedule for the whole project.

Similar to the Gantt Chart is the milestone chart which also has a calendar scale, but shows more interdependency between the work tasks to be performed.

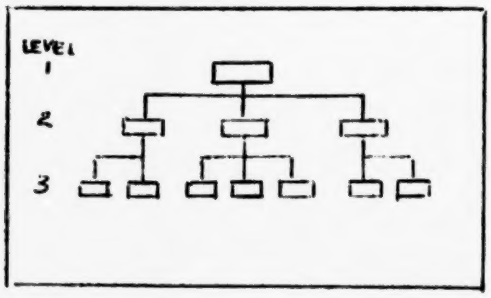
Fig. 5.1 -- Types of Charts Used by Project Management.



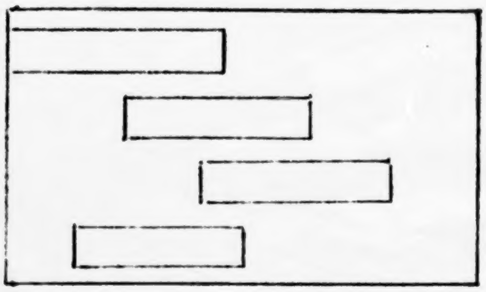
A Network
(A type of flow chart)


LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4

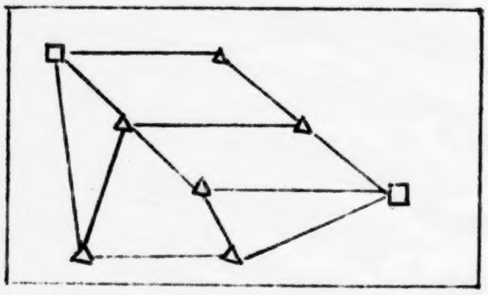
A Work Breakdown Structure
(A type of tabular chart)



A Work Breakdown Structure
(A type of rank chart)



A Gantt Chart
(A type of time chart)



A Milestone Chart
(A type of time chart)

Sequence charts.-- One chart used by project management that presents information in sequence is the "striptease chart." It is used when three or four points are covered or when the steps in a procedure are stressed.[54] While the briefer talks, strips of paper are removed from each point. On an overhead projector this may be done by moving a piece of paper or cardboard past the information.

In summary, charts should follow the previously discussed rules of an effective briefing, that is, A) accuracy, B) brevity, and C) clarity.

Graphs

The graph is a visual representative of numerical or quantitative data. Although many graphs are available, research has shown that many are difficult to interpret and therefore not useful to project management.

Most of the research on graphs has been done with older children or teenagers as the subjects. For example, in 1926, W.C. Eels reported in the Journal of the American Statistical Association, Volume 21, that college students read circle proportions just as rapidly as and more accurately than they read bar graphs.[55]

Magdalen D. Vernon, (British Journal of Educational Psychology, November, 1950) reported a study made with teenagers fifteen to eighteen years of age on the interpretation of numerical data in the form of graphs, charts, and tables. She concluded that it was necessary to present a coherent and logical statement with the graphics, including statements to integrate the discrete facts.[56]

Seven years later she reported the same findings using 160 airmen and 340 students. She also found that intelligent and well-educated people could learn from graphs and charts, but less educated understood and remembered very little.[57]

Lewis V. Peterson and Wilbur Schramm using nineteen-year-olds studied their ability to read eight types of graphs -- the circle, disc, single bar, multiple bar, multiple cylinder, multiple square column, multiple area column, and partial cosmograph. (See the next page)

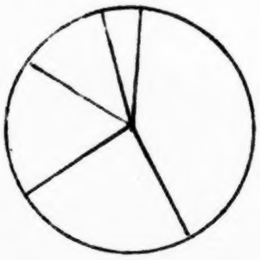
Each graph had the same proportions represented, i.e., percentages of 43, 23, 18, 10, and 6.

The following was the order of difficulty the subjects had reading the graphs:

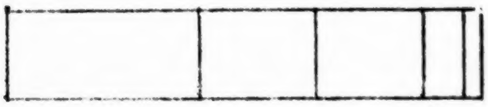
1. Circle -- the easiest to read
2. Single bar
3. Multiple square column
4. Multiple bar
5. Partial cosmograph
6. Disc
7. Multiple cylinder
8. Multiple area column -- the most difficult

Of the proportioned segments of the graph, it was found that the largest segment, 43 percent, tended to be underestimated. The 23 percent and 10 percent segments tended to be overestimated in all the graphs.[58] Four out of five of the columns in the multiple area column graph were overestimated except for the largest segment. Peterson

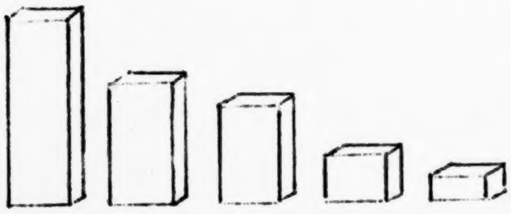
Fig. 5.2 -- Graphs Used in the Peterson and Schramm Study



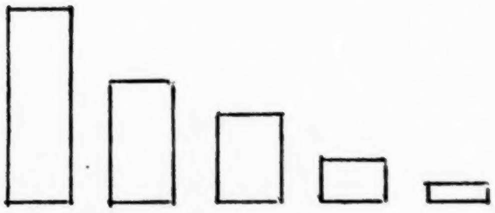
1. Circle (A)
(Easiest to read)



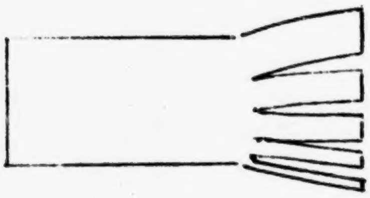
2. Single Bar (A)



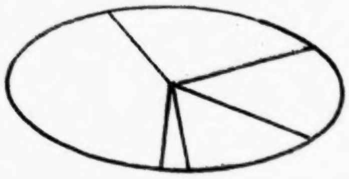
3. Multiple Square Column (A)(B)



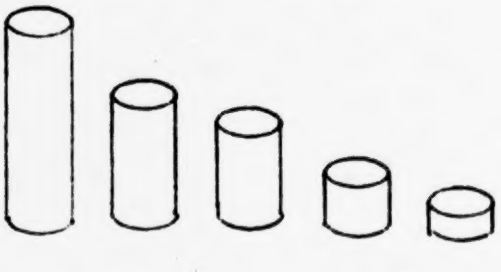
4. Multiple Column (A)(B)



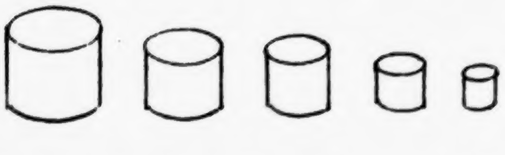
5. Partial Cosmograph (A)



6. Disc (A)



7. Multiple Cylinder (A)(B)

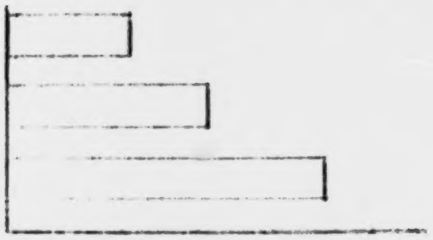


8. Multiple Area Column (A)(B)
(Most difficult to read)

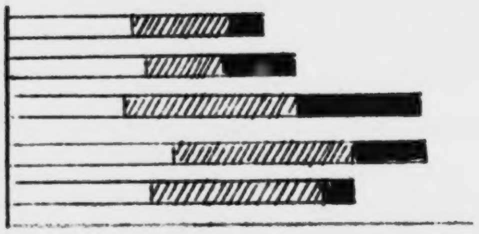
KEY

(A) Graph shows parts to whole

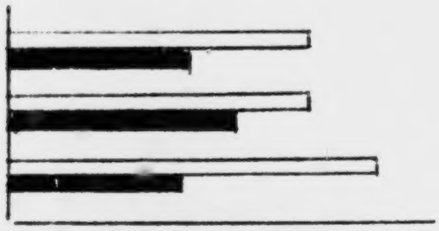
(B) Graph shows loss and/or gain



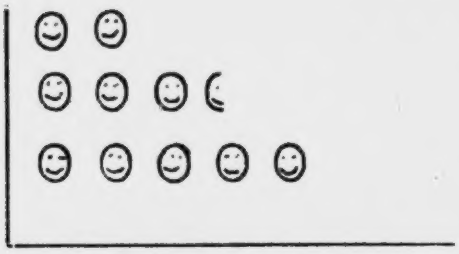
Multiple Bar (A)(B)



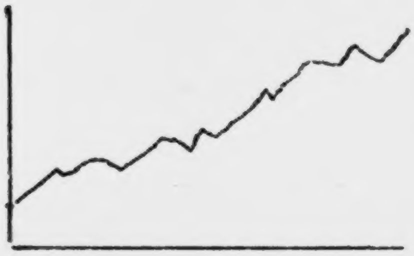
Segmented Divided Bar (A)(B)



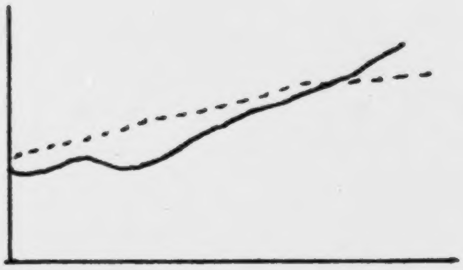
Grouped Bar (A)(B)



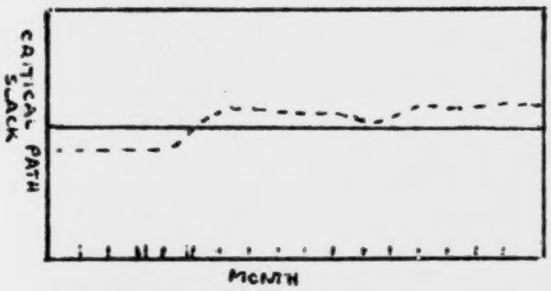
Pictograph (A)(B)



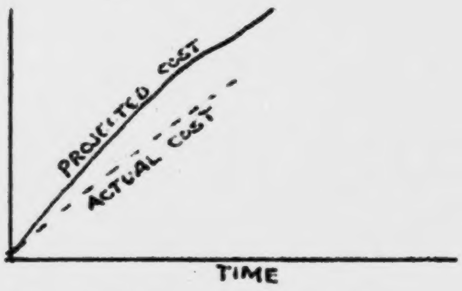
Simple Line (B)



Multiple Curve (A)(B)



Project Outlook Report (Example of a simple line graph)



Cumulative Expenditure Report (Example of a multiple curve graph)

KEY

(A) Graph shows parts to whole & comparison

(B) Graph shows loss and/or gain, trends, and changes.

Fig. 5.3 -- Graphs useful to project management.

and Schramm felt that a limitation of the study was that the graphs only represented the type that relates the parts to the whole.

Peterson, about the same time, studied seven graphs used in Air Force teaching to determine which were preferred. The seven graphs used were 1) the circle, 2) multiple bar, 3) divided bar, 4) line, 5) cosmograph, 6) composite bar, and 7) pictograph. (Examples of these charts are on the previous page.) The following were the preferences made by the airmen:

1. For simple comparison: multiple bar and pictograph.
2. For parts to whole: divided bar, divided circle, cosmograph, and pictograph.
3. For multiple comparison: the multiple bar, line and cosmograph.
4. For loss and gain: the multiple bar, line, composite bar, and pictograph.
5. For frequency: multiple bar and line.[59]

Having knowledge of such research would help the briefer select the type of graph likely to be most effective in communicating the information to project management. Graphs particularly useful to project management would show overall time, cost, and performance plans and progress. For example, the Project Outlook Report (see previous page) can show the project manager if the project is running ahead, behind, or on schedule. A form of multiple curve graph can show the project manager actual progress as compared to scheduled progress or it may show cumulative expenditures in the project as compared to planned expenditures. (See previous page.) All graphs should display the information so that it is accurate, brief, and clear to project management.

Tables

A table is a graphic symbol that organizes, classifies, and condenses meaningful relationships for easy reference. Douglass lists the qualities of good tables:

1. A sharply focused purpose
2. Purpose clearly explained in title
3. Specific box headings
4. Clear-cut classification of figures
5. Facts organized
6. Up-to-date.[60]

During a briefing, project management would not want all the figures. Therefore, the table shown would be simple by displaying only the essential figures.

Summary

This chapter has dealt with the visual channel at a briefing to project management. Keeping the "ABC's" of an effective briefing in mind -- accuracy, brevity, and clarity -- the writer discussed how certain media (means for dissemination) could be used for various situations depending upon primarily who was being briefed and where.

So that a briefer may present visual information that is accurate, brief, and clear the writer discussed some principles of visual design centered around visual elements and types of symbols.

It is not uncommon for a person to plan an effective oral presentation with visuals and neglect "the little things" that could destroy his whole message. The briefer should make the following checks before the briefing.

Before the briefing

1. Be sure equipment is available to use on the date and time of the briefing. Have extra accessories available.
    a) If using the chalkboard, have chalk, erasers, and templates if special forms are to be drawn.
    b) If using the flipchart, have marking pens and extra sheets of paper or illustration board.
    c) If using the opaque projector, have a projector bulb, plug adapter, extra paper, and pen.
    d) If using the overhead projector, have a projector bulb, grease pencils, clear acetate film, plug adapter.
    e) If using a 35-mm projector, have an extra projector bulb.

f) If using a motion picture projector, have extra bulbs for light and sound.

2. Determine if extension cords are needed for the projection equipment. Check to see where electrical outlets are.

3. If using a screen, place it in the best position. The next page illustrates different positions for the overhead projector.

4. Have a pointer available to point to information.

5. Check all visual materials for corrections.

6. Place all visual materials in proper sequence.

7. When using a projector (except the overhead) have a remote control or assistant available.

8. Focus all projection equipment.

9. Rehearse.

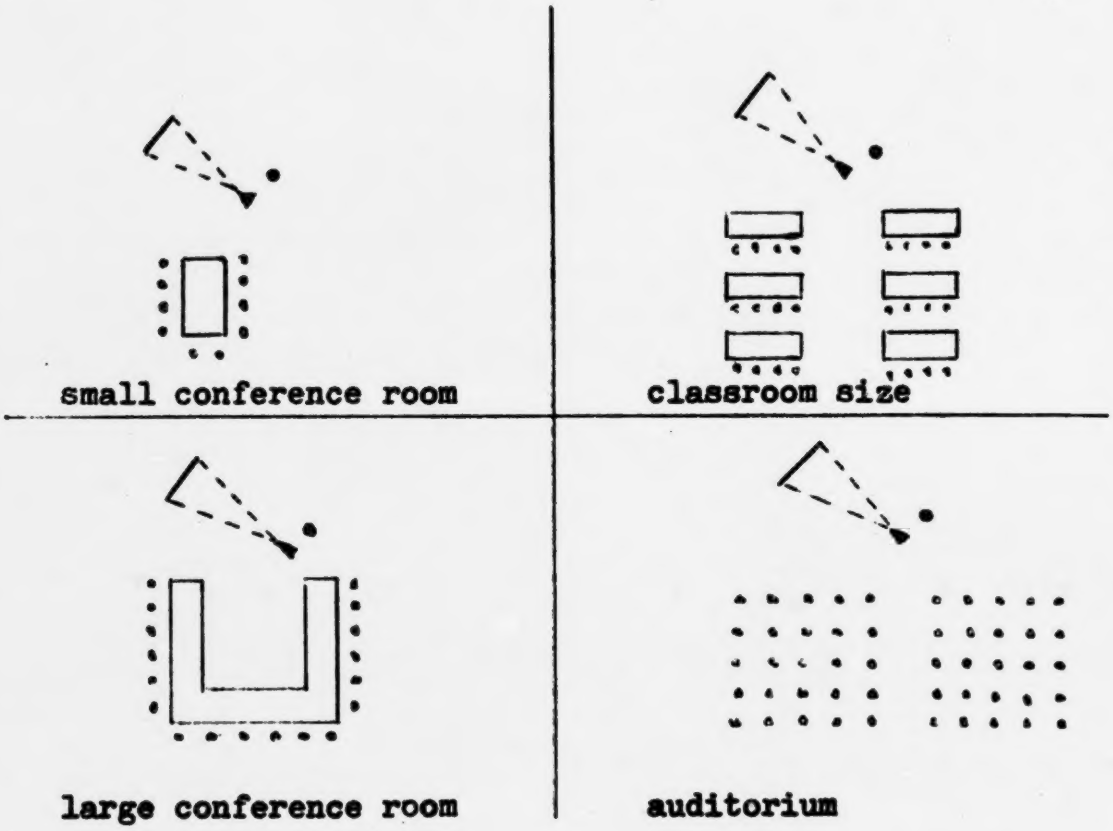
During the briefing

1. The briefer should try to always face his audience and not obstruct their view of the chalkboard, flipchart, or screen.

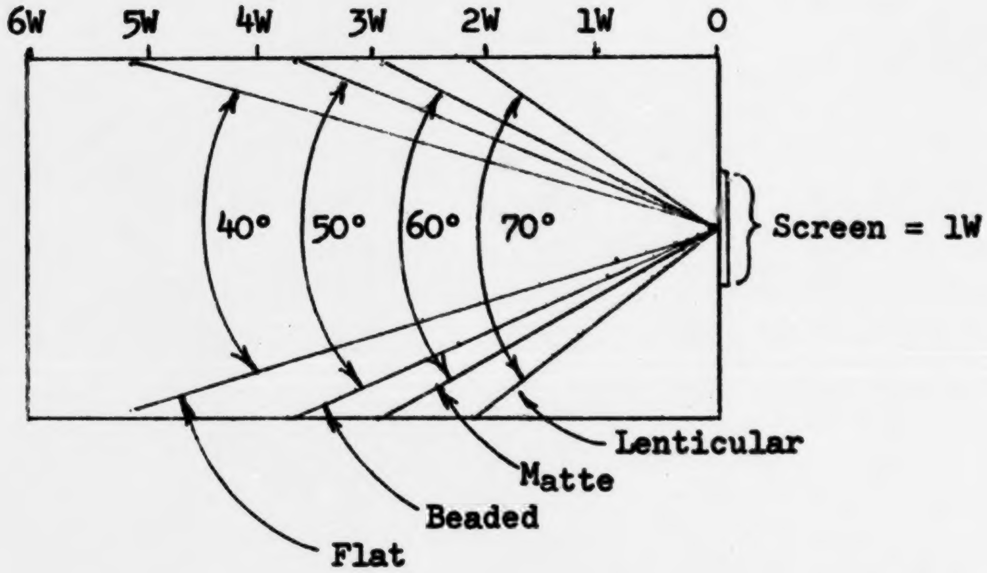
2. The pointer should be used while explaining a visual. This is recommended rather than using a finger to point.

3. When the visual and oral presentation are well coordinated it is an effective moment within the briefing. Having the wrong visual on the chalkboard, easel, or screen during the oral presentation produces confusion and inter-

- Fig. 5.4 -
Placement of the Screen
for
the Overhead Projector


small conference room
classroom size
large conference room
auditorium

- Fig. 5.5 -
Viewing Area of Types of Screens


6W
5W
4W
3W
2W
1W
0
40°
50°
60°
70°
Screen = 1W
Lenticular
Matte
Beaded
Flat

ference among the participants of the briefing.

4. When there is no visual material during a certain phase of the briefing, only the speaker should be seen. There should be no exposed visual material or a blank lighted screen.

5. When noisy equipment is being used, the briefer should increase his voice intensity to decrease the noise competition and increase the audibility of his speech.

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SUMMARY

The purpose of this study was to describe and discuss briefing as an efficient method for communicating reports to project management. Briefing was defined as an oral form of communicating specific objectives, tasks, or information with accuracy, brevity, and clarity.

Since the briefing has a military derivation, the writer conducted a small case study of the Air Force and how it uses briefing. It was found that briefings can occur anywhere within, between, or outside the organizational hierarchical levels. The types of briefings were divided according to the direction of flow within the hierarchy, i.e., vertical, horizontal, or radial.

Briefing is a process of communicating. Therefore, how the briefing can be applied to a communication model such as David Berlo's S-M-C-R (Source-Message-Channel-Receiver) Model was discussed in Chapter Two. Following a short description of several communication models, the writer fragmented Berlo's Model and discussed each segment. A communication model such as Berlo's provides the briefer with a foundation from which he may work. It shows him that communication is a two-way process and involves not only the source, i.e., the briefer, but also a message, a channel, and the receiver, e.g., the project manager. Each can determine the effectiveness of the briefing.

In the remaining chapters, the writer discussed the briefer, the project manager, and the channel. The message was discussed in part throughout the chapters.

Chapter Three specifically applied to the source of the briefing, the briefer. Discussion centered on how the briefer could organize and plan his briefing accurately by making a preliminary survey of the purpose, the audience, the number attending, and the time and place of the briefing. In addition to the preliminary survey, a plan should be selected that best fits the content and purpose of the briefing. Together they are placed in outline form to provide the briefer with a logical plan from which he can work. Considered also was how the briefer could clearly deliver the information by avoiding the use of specialized jargon, by defining technical terms, and by controlling his voice so the project manager could receive the message clearly. Forms of non-verbal communication such as facial expressions, eye-contact, gestures, dress, and empathy were considered also as playing an important role in the delivery of the briefing.

The receiver of the briefing, the project manager, was discussed in Chapter Four. The project manager, a person with many important responsibilities, must continually be informed of problems and deviations that occur within the project. Through reporting techniques such as briefings, the information must be accurate, brief, and clear so that accurate decisions can be made. However a project manager who is a poor listener may not receive enough information or may be confused enough to make a poor or wrong decision. It was decided that poor listening could be caused by factors operating within the briefer, the environment, or the project manager himself. Credibility and empathy, two important factors in establishing effective interaction between the briefer and the project manager, were considered to be necessary during the briefing. It was concluded that as more "filters" or barriers are removed during the briefing, the better the project manager will receive the information and retain it for present and future decisions.

Since Chapters Three and Four dealt specifically with the auditory channel, Chapter Five dealt with the visual channel. In Chapter Five, the writer defined channel and discussed the differences between auditory and visual channels. It was decided that the use of visuals during a briefing help the briefer and project management understand the information in many ways. However selection of the proper visual media should be determined by audience size and composition, time and place of the briefing, availability of equipment, and time and cost to produce the materials. Selection of various media for seven briefing situations were discussed. Visual design was included because the writer felt the briefer and project manager should possess general knowledge about it since it can determine how accurately and clearly the information will be delivered and received.

Graphics such as charts, graphs, and tables were considered to be useful in delivering an extensive amount of information to project management in a brief and easily understood form. "Little things" a briefer should remember before and during the briefing concluded the chapter.

A briefing, if planned and delivered with accuracy, brevity, and clarity, can provide project management with a vital form of receiving timely reports that will help maintain a project on schedule and minimize any problems that may arise.

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